

INSIDE DOPE

by GEORGE F. TAUBENECK

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Story of the Week

From a friend in Hollywood comes a story about all-woman Shelley Winters and tough-guy John Garfield.

Following directions, Shelley slapped Garfield resoundingly. Each time they rehearsed this scene she slapped him harder—and seemed to enjoy it.

"Miss Winters," coughed John, "have you read the 23rd scene of this film play?"

"Huh-uh. Should I?"

"Perhaps," glinted Garfield. "I smack you in that scene."

Gags of the Week

From March, 1933, until September, 1951, residents of Washington who phoned the District of Columbia morgue were startled with this response:

"The Morgue. St. Peter speaking."

But no longer.

Joseph F. St. Peter, the pixieish custodian of the morgue, has retired.

"Good leather," apologized a shoe-maker in our neighborhood, "is being diverted to steaks nowadays."

"How busy is not so important as why busy. The bee is congratulated; the mosquito is swatted."—*Capper's Weekly*.

"If you have troubles, come in and tell us about them. If not, come in and tell us how you do it."—*Arkansas Baptist*.

"You don't get ulcers from what you eat. You get them from what's eating you."—*Detroit Free Press*.

Verse of the Week

"From quiet homes and first beginning,
Out to the undiscovered ends,
There's nothing worth the wear of winning
But laughter and the love of friends."

HILAIRE BELLOC

Add Russian Stories

"What's this about ye joinin' the Communist Party?" bejabbered Pat. "Are ye off your feed?"

"Nope," explained Mike. "My doctor tells me I can't live long. Me, I figure 'tis better for a Communist to leave this world than a good Catholic."

Speaking of Russia, the following appeared more than 60 years ago in Rudyard Kipling's "The Man Who Was"

"Let it be clearly understood that the Russian is a delightful person until he tucks his shirt in."

"As an Oriental he is charming. It is only when he insists upon being treated as the most easterly of Western peoples, instead of the most westerly of Easterns, that he becomes a racial anomaly, extremely difficult to handle."

Man's Emancipation

A survey by the National Office Management Association discloses that countless male office workers are the rule, not the exception—particularly during the summer months.

Of the 2,100 firms queried, 75% permitted shirt-sleeves at any time, 13% stayed it in summer, only 2% prohibited such attire.

P.S. Cuspidors still are used in 20% of the firms "surveyed."

Point toward your own conclusions.

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NPA Says: More Steel In '52 For Small Users

WASHINGTON, D. C.—Small users of steel who buy from warehouses recently won a measure of assurance that they will receive a continuing flow of iron and steel after Jan. 1, 1952.

The National Production Authority has issued order M-6A which requires steel mills to ship to warehouse distributors the same monthly tonnages as they shipped between Jan. 1 to Sept. 30, 1950, and more so long as such shipments do not conflict with other NPA orders and directives.

The move was made expressly to assist small users in getting the steel they need.

Limitations imposed in the order restrict warehouses from delivering to any one customer in one week the following amounts of materials: carbon steel, 8,000 lbs.; stainless steel sheet, 2,000 lbs.; stainless steel bars and plates, 1,000 lbs.; stainless steel tubing or pipe, 1,000 lbs. or feet, whichever is less; and alloy steel, 5,000 lbs.

Distributors also are not required to deliver to any one customer in any calendar week, more than 40,000 lbs. of steel products unless the order calls for 10 or more different items.

Mfrs. Can Switch Use of Allotments

WASHINGTON, D. C.—Appliance manufacturers can now shift their allotted steel, copper, and aluminum among any of the electrical equipment items they manufacture.

This increased flexibility in the use of controlled materials was announced by the National Production Authority recently in its order M-47B.

Previously consumer durables manufacturers were permitted to shift their steel allotments only between specified groups of products, and their copper and aluminum allotments between even narrower ranges of sub-groups within these groupings.

Under the new order, they can

Aluminum Diverted To Aid Industry

WASHINGTON, D. C.—To ease the critical aluminum shortage, the National Production Authority has announced that it will divert primary aluminum destined for the government's stockpile to fill industry allocations.

Though Manly Fleischmann, head of the Defense Production Agency, claims that the shortage is not nearly as disastrous as originally expected (when more cuts in allocations were indicated for the first quarter of 1952). Aluminum consumption

(Concluded on Back Page, Column 5)

Non-Filers Face Trouble In '52

WASHINGTON, D. C.—Manufacturers who have not yet filed applications for first-quarter (1952) allocations of steel, copper, and aluminum were advised by the National Production Authority to do so at once or suffer the consequences.

Although applications were due Oct. 1, many producers have not yet submitted the required forms, according to Manly Fleischmann, Defense Production Administrator. He warned them that unless the forms are filed immediately, they will have

(Concluded on Back Page, Column 3)

Crosley To Add Room Conditioners, Dishwasher to Line

NEW YORK CITY—Crosley Div., Avco Mfg. Corp., plans to add room air conditioners and an automatic dishwasher to its lines by next spring, it was reported here.

The company expects to introduce the room units in the spring and the dishwashers somewhat sooner, it was said, provided materials restrictions and shortages do not upset the marketing schedule.

(Concluded on Page 21, Column 2)

WSB To Hear UAW, Copper, Brass Mill Disputes Oct. 15

WASHINGTON, D. C.—The Wage Stabilization Board announced that hearings in the disputes between the United Automobile Workers union (CIO) and 13 companies in the copper and brass rolling mill and fabricating industry will be held in Washington beginning Oct. 15.

The WSB will report to the President with its recommendations to the parties as to fair and equitable terms for settlement of the disputes.

The President certified the disputes to the WSB on Sept. 24, stating that any interruption of production, at this time, in copper and brass rolling mill and fabricating plants would substantially threaten the progress of national defense.

New G-E, IUE Contract Grants 2 1/2% Pay Raise

NEW YORK CITY—Some 70,000 employees in 55 General Electric Co. plants will get a pay increase of 2 1/2% as of Sept. 15, with a minimum raise of 3 1/2 cents an hour, under a new contract between the company and the International Union of Electrical Workers, CIO.

The settlement, which must be submitted to the Wage Stabilization Board, was nearly identical with the offer made to the union by G-E a few weeks earlier. At that time, Lemuel R. Boulware, company vice president, estimated the cost of the total package at \$25,000,000 to \$30,000,000.

In addition to the 2 1/2% increase, G-E also agreed to a cost-of-living escalator arrangement that would permit a 1% wage rise for every 1% increase in the index of the Bureau of Labor Statistics. Among other things, the company also agreed to grant three weeks' vacation after 15 years' service, instead of after 20.

The United Electrical, Radio and Machine Workers of America, which

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BUS SERVICE

To and from Navy Pier Offered Show Visitors

WASHINGTON, D. C.—Arrangements for a bus service to transport delegates to the All-Industry Exposition between downtown Chicago hotels and the Navy Pier in the morning and from the Pier to the hotels in the evening are being made by George E. Mills, Show director.

Plans are that bus service will be available at all times at the rate of 30 cents per ride, according to Mills. It is expected that the buses will be marked "Navy Pier" on the way to the Pier and "Downtown Hotels" as they leave the Pier.

Housewares Dealers Can Use In-Line Pricing

WASHINGTON, D. C.—A further extension of automatic in-line pricing at retail for several groups of consumer goods, including housewares, electrical appliances, pianos, radios, luggage, and sporting goods, was provided by the Office of Price Stabilization in amendment 10 to CPR 7.

The change applies to retailers handling new categories of specified articles not included on their pricing charts. In-line pricing permits these retailers to apply markups derived from comparable categories already listed on their pricing charts.

Example of in-line pricing under the amendment: A retailer whose pricing chart includes small electrical appliances such as electric toasters adds portable radios to his line of merchandise. He may establish his ceiling price by referring to the

(Concluded on Page 4, Column 5)

CMP Amendments Extend Time Period for Orders In Major Disaster Areas

WASHINGTON, D. C.—The National Production Authority has extended from 90 to 180 days the period during which orders may be placed by firms in major disaster areas to obtain material for the repair and damages to equipment and supplies and to replace ruined equipment and supplies.

The action was taken in an amendment to Direction 2 under CMP Regulation 5.

A similar amendment was made to Direction 2 under CMP Regulation 6. This direction authorizes businesses in major disaster areas to obtain material for the reconstruction or repair of damaged buildings.

MBSA Tells How It May Standardize Condensing Units for Military Use

WASHINGTON, D. C.—How the Munitions Board Standards Agency expects to standardize refrigeration condensing units for use by the military was indicated in a recent letter circulated by the agency.

The indications were contained in instructions to the Quartermaster Corps to use the following as a basic requirement for the standardization study of refrigeration and air conditioning equipment now being made by a task group of the agency:

"A. That standard type condensing units (self-contained) using open type compressors and air-cooled condensers be established on the following basis:

"(1) Interchangeable compressors having universal type bed plates and interchangeable valve bosses for use of standard inlet and outlet valves for

House-Senate Group Agrees To Tax More Items

Clothes Driers, Dishwashers
Dehumidifiers, Ice Cream
Freezers, Mangles Included

WASHINGTON, D. C.—A 10% manufacturers' excise tax would be applied to a number of electric and gas appliances under changes agreed upon by the House-Senate conference committee which was drafting the final version of the 1951 tax bill.

The appliances, which would be taxed under Section 3406 of the Internal Revenue Code, include electric and gas clothes driers and electric dishwashers, dehumidifiers, ice cream freezers, and mangles.

Also, electric sheets and spreads, power lawn mowers, heaters of the blower type, exhaust blowers, belt-driven fans, direct motor-driven fans, door chimes, floor polishers, waxers, food choppers and grinders, hedge trimmers, motion picture and still picture projectors, and pants presses.

No attempt was made to apply the tax to electric vacuum cleaners and

(Concluded on Page 21, Column 3)

Petrone, York Get New Typhoon Posts

BROOKLYN—James F. Dailey, president of Typhoon Air Conditioning Co., Inc., has announced the appointment of Don V. Petrone as executive vice president and John E. York as sales manager.

Petrone joined the engineering department of Typhoon in 1935, was later transferred to the sales department, and served as export manager from 1939 until 1942, when he joined the Air Force. He left the service as a captain in 1945 and rejoined Typhoon as sales manager, becoming vice president in 1947.

York has been associated with the company for five years. He has been district sales manager for the New York and New England territory for the past three years. Prior to joining

(Concluded on Back Page, Column 3)

DiSalle's Revisions To Capehart Amendment Face Delaying Actions

WASHINGTON, D. C.—Price Stabilizer Michael DiSalle won Senate approval for his suggested revisions of the Capehart Amendment to the price control law but is faced with a nip-and-tuck race in the House.

Where the Capehart amendment allows individual manufacturers to ask for price ceilings based on their pre-Korean war prices plus cost changes up to July 26, 1951, DiSalle is seeking authority to set ceiling solely on an industry-wide basis and wants more leeway in determining what indirect costs are to be included in the ceilings.

DiSalle's trouble lies in the fact

(Concluded on Page 21, Column 3)

Furniture Sales Volume About Even With Same Period During 1950

CHICAGO — Furniture manufacturers, wholesalers, and retailers will wind up the first three quarters of 1951 "about even" with the same period in 1950, and will fight hard to make the year end up even in volume with record-breaking 1950. This is the view of Gen. Lawrence H. Whiting, president of the American Furniture Mart, and represents reports of the Mart's executive staff, who have visited every section.

"While October, November, and December are going to make up the quarter that counts" in volume, it will be next to impossible for most firms to equal the profit they made in record-breaking 1950," Gen. Whiting said. "The big bulge in business this year came in the first four months. From then on, manufacturers and merchants were heavily overstocked, and sacrificed profit to move their inventory."

"May and June were the top months of the over-stocked condition, and in those months inventories were 30 and 40% higher than they had been the previous year. By the first of September they had worked down so that they were only 10 to 15% over the same dates in 1950, and by the first of October should be about 'normal.'"

"A general pick-up in sales has been noted generally since Labor Day," he continued. "Sales events which were disappointing in July and August proved quite successful this month. August probably saw the

biggest drop in volume of the year, inasmuch as it was competing with the boom buying month of 1950, but September was the 'Beat Regulation W' month last year, and 1951 figures are close to those of a year ago."

While appliance, radio, and television sales have lagged behind furniture, they too picked up substantially after Labor Day, and by the first of the year, some of the shortages forecast for 1951 may begin to show up, Whiting believes.

Department Store Sales Up 2% for Sept. 29 Week

WASHINGTON, D. C.—A 2% gain in department store dollar sales for the week ending Sept. 29 as compared with the corresponding week a year ago was noted by the Federal Reserve Board here.

For the year to Sept. 29, sales were 3% ahead of last year.

Gains were noted in all Federal Reserve districts except New York where sales dropped 3% from the 1950 week. Greatest gain was made in the Dallas district where sales were up 10%. The Kansas City district showed a 9% rise.

The others trailed along as follows: Cleveland 5%, Boston, 4%, Richmond and Chicago 3%, Minneapolis and Atlanta 2%, and Philadelphia and San Francisco 1%.

Durable Goods Mfrs. Seek Ways To Educate Rising Costs In Price Schedules

NEW YORK CITY—Manufacturers of durable goods are seeking to convince government agencies that there should be some provision in price regulations to provide for automatic inclusion of rising industrial costs in their price schedules.

Cited as sources of increased expense to these manufacturers were delays in obtaining purchased parts, higher costs of substitute materials and processes, increased costs of expediting, withdrawal of quantity discounts by suppliers because of smaller lot purchases, interruptions to production because of shortages of materials, and higher transportation, labor, fuel, and power costs.

Many industrial machinery manufacturers are no longer quoting firm prices on their products, it was said.

Huron, S. D. Residents Repeal Anti-Peddler Ordinance

HURON, S. D.—By a vote of 2,039 to 535, local residents repealed an ordinance requiring any solicitor or peddler to obtain a permit and license for a fee and to pay a tax of 2%.

Passed last July by the City Commission, the ordinance also required solicitors to post a bond whether they were residents or non-residents. In the case of residents, however, the commission could investigate to determine if the fixed fee was unfair.

Come on a Our Town

Refrigeration Boom In Brownsville, Texas Creates Need for Consulting Engineer

BROWNSVILLE, Tex.—Changing the words of the currently-popular song a bit, the local Board of City Development is singing "Come on a Our Town" to any highly-qualified consulting refrigeration engineer who'll listen.

The reason: the board discovered by way of a recent official survey that Brownsville is short-handed in this type of specialist.

Two factors were listed as contributing to the shortage: "An increase in the number of quick-freeze plants and the ever-increasing number of refrigerated boats of the shrimp and fishing fleet based at Brownsville."

The board's appeal continued: "The advent of the major portion of the Gulf Coast shrimp fleet, and the resultant construction of facilities to handle the vast tonnage of seafood now clearing through this port, together with the natural increase in other lines of refrigeration make the opportunity for a highly qualified specialist attractive."

The board passes on the informa-

tion that Brownsville is a city of about 50,000 including suburbs and is located opposite the Mexican city of Matamoros, Tamps., of similar size, 30 miles from the Gulf of Mexico.

Transportation facilities, it is reported, include the deep water inland Port of Brownsville, the terminus of the Intracoastal Canal, three railroads (including the Mexican National system), two bus lines, and a dozen air freight passenger lines using the International Airport. A new highway links the town to the Pan American highway at C. Victoria, Mexico.

The board would also like you to know that the weather is semi-tropical with light rainfall and an average temperature of 73°, and that the city has a daily newspaper, two radio stations, a modern hospital, a junior college, and good recreational facilities. And—now hear this!—"Living costs are low."

If you're qualified and interested, contact the board for further information. It will render maximum assistance.

11 Refrigeration, Air Conditioning Firms Get 'Highest Merit' Awards

NEW YORK CITY—From the 5,000 corporation annual reports for 1950 rated in the eleventh annual survey conducted by Weston Smith of *Financial World*, 11 air conditioning and refrigeration companies have qualified for "Highest Merit Award" citations.

They are: American Air Filter Co., Inc.; Carrier Corp.; Copeland Refrigeration Corp.; Fedders-Quigan Corp.; Hussmann Refrigeration, Inc.; Servel, Inc.; Tecumseh Products Co.; The Trane Co.; U. S. Thermo Control Co.; Victor Products Corp.; and York Corp.

The stockholder reports of these companies have thus become candidates for the final judging, and one will be selected for a "Best of Industry" award and presented with a bronze "Oscar of Industry" at the *Financial World* Annual Report Awards Banquet on Oct. 29 in the Grand Ballroom of the Hotel Statler in New York City.

Sales Executive Essay Contest Gets Under Way

NEW YORK CITY—The National Sales Executives' fifth annual "Selling as a Career" essay contest got under way recently with the appointment of Harry M. Bowser, sales training manager of Sloan Blabon Corp., as national chairman.

The contest is sponsored by 120 local Sales Executives clubs and is open to high school students throughout the country. Purpose of the contest, which runs from September through April, is to stimulate students' interest in salesmanship.

The student who writes the winning essay of 1,000 words or less on the subject, "Selling as a Career," will receive \$1,000 and a three-day, all-expense trip to the 1952 National Sales Executives convention, to be held in San Francisco May 27-29.

Additional prizes include \$250 for second place, \$100 for third, \$50 each for the seven next best essays, and 50 Certificates of Award for honorable mention. There will be other national prizes awarded to sponsors of the first and second prize winners and to schools that meet contest-participation rules, and also local awards.

Canadian Credit Curbs Too Strict, Hinder Sales, CEMA Officials Report

NIAGARA FALLS, N. Y.—Officials of the Canadian Electrical Manufacturers' Association said at their annual convention here they thought the government has made it too difficult for people to buy their product.

They also protested that the industry is being made to bear too heavy a part of the fight against inflation. Credit restrictions and excise taxes, in their present degree, do not fight inflation, it was asserted.

The officials said people are spending their money anyway on lower-priced goods without being able to buy higher-priced articles which they need.

Current production in electrical appliances is down by more than one half from the same time last year. This has led to layoffs. Employment has been maintained only by producing more goods than are being sold. This, it was stated, cannot continue indefinitely and the industry is fearful of losing trained personnel which it may need later for defense orders.

Present defense orders account for about 2% of the electrical industry's production and this may go up to 5% in the next six months or a year; but, in the opinion of spokesmen, it is not likely to go up fast enough to take care of the slack caused by reduced civilian sales.

CPR 67 Allows Reseller To Use 1950 Markup

WASHINGTON, D. C.—The Office of Price Stabilization recently added a provision to its resellers' ceiling price regulation (CPR 67) for machinery and related manufactured goods which precludes the use of published list prices issued by a manufacturer who has changed his discount structure since June 24, 1950.

In such cases the reseller will determine ceiling prices by applying the percentage markup he used during the period April 1 through June 24, 1950, to the legal cost of the commodities.

CPR 67 includes the wide range of machinery and other items covered by the machinery manufacturers' ceiling price regulation (CPR 30), plus brass mill products covered under CPR 68.

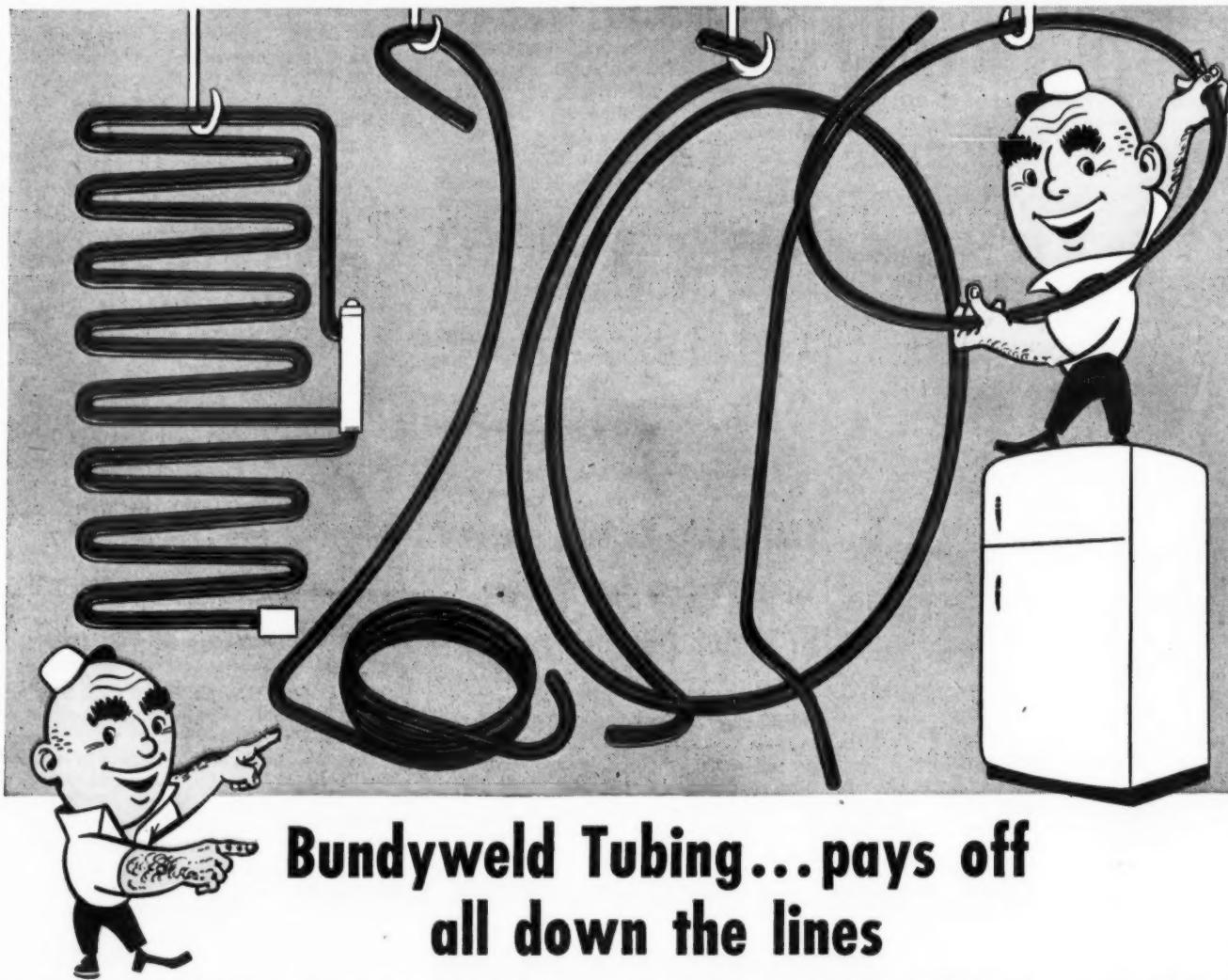
Product Lines Wanted

For Sale Through Refrigeration Supplies Wholesalers

Experienced, established Texas manufacturers' representative agency wants additional lines of refrigeration and air conditioning equipment and components to be sold by refrigeration equipment supplies wholesaler. Cover large area in the southwest.

We will be at the All-Industry Show in Chicago Nov. 5-8 and interested manufacturers are asked to submit information on their lines and where they can be contacted in Chicago at the time of the Show.

Write Box 3835, Air Conditioning & Refrigeration News



Bundyweld Tubing... pays off all down the lines

In the fabrication and performance of your condensers, evaporators, or refrigerant lines, double-walled Bundyweld pays off handsomely.

Bundyweld is the only tubing double-walled from a single strip, with a patented beveled edge. It's copper-brazed through 360° of wall contact into a solid-wall tubing with inherent advantages in refrigeration.

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You can bend ductile Bundyweld to short radii with no fear of collapse. You can machine it almost any way. And you can rely on Bundy engineers for advice and information. Or if you wish, we'll produce your parts on our ingeniously designed bending machines. We'll ship the completed parts promptly—ready, willing, and able to give you better refrigeration. Write **Bundy Tubing Company, Detroit 14, Michigan.**

Visit Bundy at . . . **ALL-INDUSTRY SHOW**
CHICAGO—NOVEMBER 5-9

Bundyweld Tubing

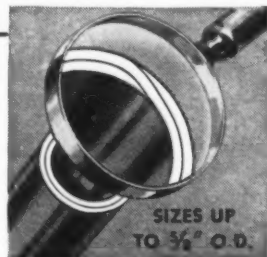
DOUBLE-WALLED FROM A SINGLE STRIP

WHY BUNDYWELD IS BETTER TUBING



Bundyweld starts as a single strip of basic metal, coated with a bonding metal. Then it's... continuously rolled twice around laterally into a tube of uniform thickness, and... passed through a furnace. Bonding metal fuses with basic metal, presto— Bundyweld... double-walled and brazed through 360° of wall contact.

Bundy Tubing Distributors and Representatives: Cambridge 42, Mass.: Austin-Hastings Co., Inc., 226 Binney St. • Chattanooga 2, Tenn.: Peirson-Deakins Co., 823-824 Chattanooga Bank Bldg. • Chicago 32, Ill.: Lapham-Hickey Co., 3333 W. 47th Place • Elizabeth, New Jersey: A. B. Murray Co., Inc., Post Office Box 476 • Philadelphia 3, Penn.: Ruten & Co., 1717 Sansom St. • San Francisco 10, Calif.: Pacific Metals Co., Ltd., 3100 19th St. • Seattle 4, Wash.: Eagle Metals Co., 4755 First Ave. South Toronto 5, Ontario, Canada: Alloy Metal Sales, Ltd., 881 Bay St. • Bundyweld nickel and Monel tubing is sold by distributors of nickel and nickel alloys in principal cities.



NOTE the exclusive patented Bundyweld beveled edge, which affords a smoother joint, absence of bead and less chance for any leakage.

SIZES UP TO 3/4" O.D.

Freezer Storage Space by Mid '52 Will Equal That In All Locker Plants, Says Sears Sales Manager

By C. Dale Mericle

CINCINNATI—"By mid-1952 home freezer space will equal the total storage space in all the locker plants of this country," predicted Douglas Pearce, national sales manager of Sears, Roebuck & Co.'s home freezer division at the 12th National Frozen Food Locker convention here.

This and other figures were cited by Pearce to convince locker operators that they should help promote the sale of home freezers rather than hinder them, but he also acknowledged the assistance already given by locker operators along these lines.

"As of January, 1951, there was 64,000,000 cu. ft. of storage space in lockers and home freezers combined. In 1950 home freezers accounted for 43% of the space, compared with 1946 when they represented only 18% of low temperature storage space," Pearce said.

"In 1950, however, home freezers contributed 93% of the gain made in storage space," he added to emphasize the trend.

Interesting data regarding Sears' place in the home freezer picture were also brought out during his talk. Sears is represented in 667 cities, and its 1950 sales volume on freezers totaled \$34,266,111, he revealed.

"This year we're going to sell 127,000 freezers, and by the time I retire in 1953 I hope to see our annual sales totaling 300,000."

Of his company's 1950 sales, the biggest percentage was in the mid-west with California running second, Pearce said. But in terms of the potential market, sales in California were better, in his opinion.

"The great home freezer market is only 7 to 8% saturated," he declared adding the statement (which proved surprising to locker operators) that "67% of our national home freezer market comes out of cities, the remainder out of the rural areas."

"Freezers have to be sold; they won't sell themselves," he continued. "We've found that we need one salesman for every 16 to 24 freezers sold during a 'period.'"

(Sears divides its year into 10 "periods" instead of 12 months.)

"We'll have to work like hell and advertise to sell freezers. We've got to go back to work the way we did in 1932. The honeymoon is over."

The prospects for freezer sales are excellent even though the industry will have to work hard to realize the full potential, he implied.

"More and more women are getting experience with frozen foods by using the limited storage space in their household refrigerators," Pearce

reminded the locker operators. "Frozen foods are here to stay, and we're only babies in the business now."

"You locker operators have the same opportunities in the frozen food business as the big supermarkets," the Sears executive told the group as he reviewed the operations of the Coldspot Economy Club in promoting frozen foods and freezer sales.

"We have to sell the masses by the marriage of the locker plant with the home freezer dealer—something that our Economy Club is designed to do. Why one locker operator increased his sales 85% and rented more locker space as a result of the Coldspot Economy Club," Pearce said.

"Sears puts on public demonstrations of freezers and frozen foods, but our main objective is to sell the

public on the idea of frozen foods first, not home freezers."

He stressed the fact that the public has much to learn about frozen foods and home freezers.

"I have seen home freezer users who wrapped meat in newspaper and used ordinary paper bags for vegetables. This was partly our fault," Pearce admitted, "because we didn't educate the users properly."

Locker operators were praised by the speaker for the job they had done in promoting frozen foods as well as the educational job they have performed. Such plants could do more, however, along promotional lines which would react to their benefit as well as for the industry as a whole.

"Here's a promotional stunt you might try to sell freezers," he sug-



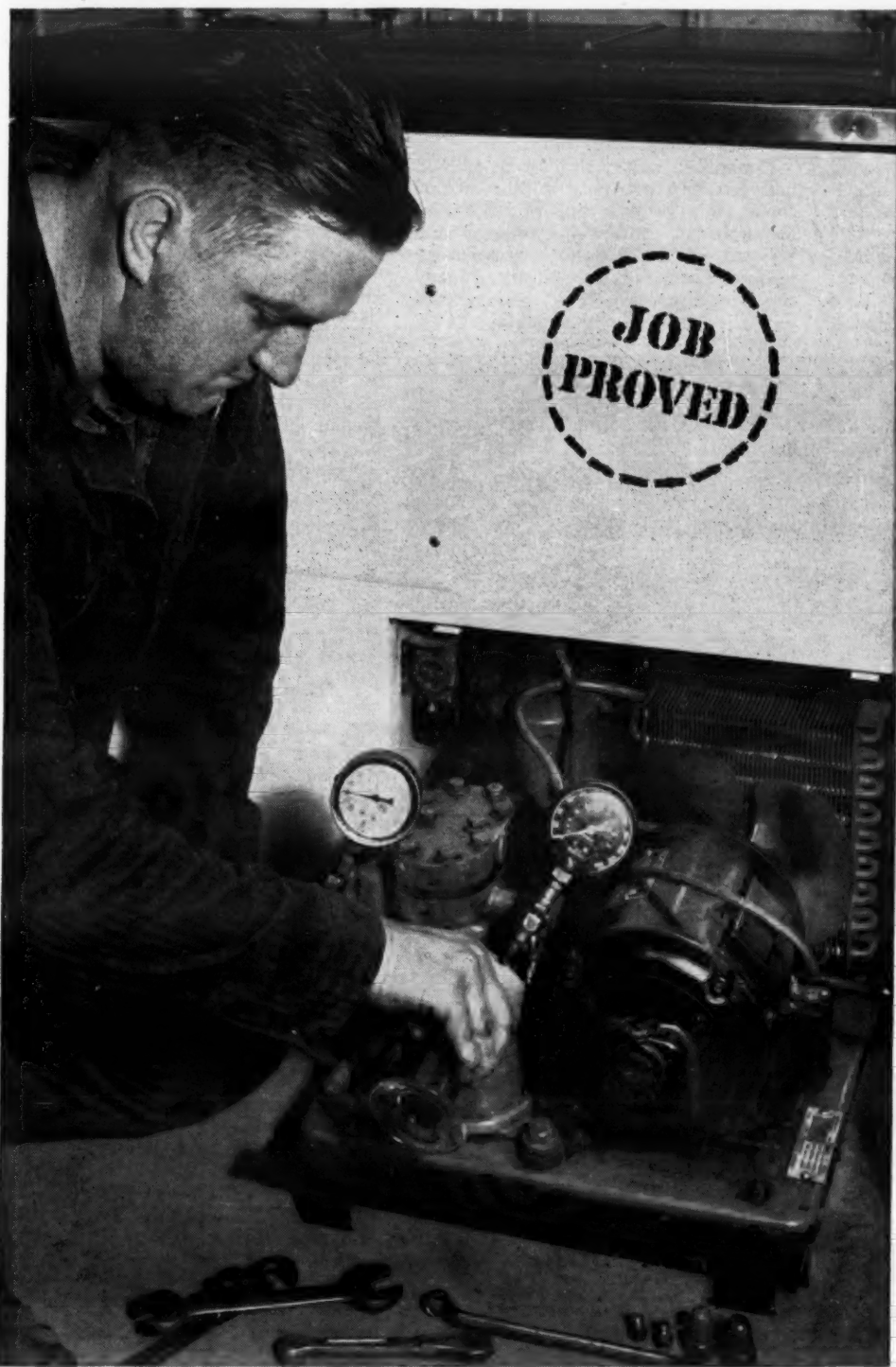
FRIGIDAIRE has found increasing interest in units equipped with combination air and water-cooled condensers for locker plants and other applications. J. A. Smith informs Wauneda Ruff, at the National Frozen Food Locker convention. Figured on an annual basis, Smith said, such units will save more than 90% on water consumption.

gested. "Why not give away a frozen pig to the freezer prospect who comes closest to guessing the weight of the pig. And if I were running this contest and I saw a woman making a guess who looks like she could buy a freezer, if her guess came anywhere close I'd award her the pig."

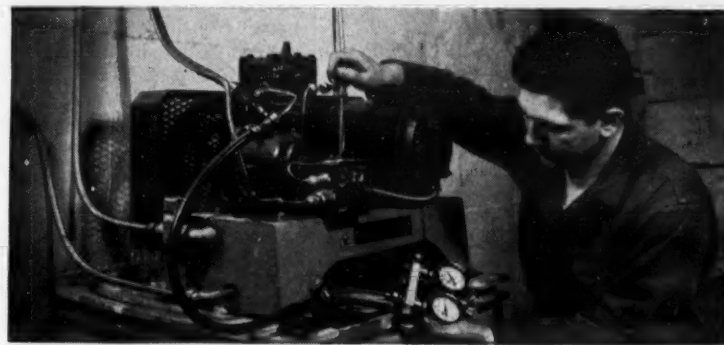
"There she is with a frozen pig on her hands. What's she going to do

with it? She can't take it home and put it in her refrigerator. Obviously, she's going to have to buy a freezer. You've made a sale right there and developed a new customer."

"You locker operators ought to be selling freezers, too," he urged. "As for what kind to sell, Pearce opined, 'I don't believe there's a poor freezer on the market today made by a top-name company.'"



AN ICE CREAM MAKER has retained the good will of his 170 outlets by changing to Suniso Refrigeration Oils to keep their compressors free of trouble. In the past eight years, not one of the units has ever required major repairs.



A REFRIGERATION EQUIPMENT DISTRIBUTOR, servicing retail dairy outlets, has reduced costly calls—frequently involving overhauls—simply by switching to a Suniso Refrigeration Oil. The old bugaboos of sludge and gum have vanished.



A DAIRY, handicapped by poor refrigeration for years because of constant clogging of compressor valves, turned to the exclusive use of a "Job Proved" Suniso Refrigeration Oil. Since the change was made, all valve trouble has completely disappeared.



A REFRIGERATION EQUIPMENT MANUFACTURER, after trying many competitive oils with only partial success, finally stopped wax separation at low temperatures by consistently using a Suniso Refrigeration Oil.

Takes More Than a Tornado To Knock Out This Freezer

OLNEY, Tex.—When a tornado screeched through this quiet village one hot afternoon in May, it left a 200-yard-wide swath of personal and property destruction but failed to "knock out" one International Harvester home freezer.

Dr. J. P. Lovett kept a fully stocked model 70 freezer in his garage. The twister picked up and smashed the garage to pieces, and inflicted major damage to the top and sides of the freezer.

But 36 hours later, when the freezer was checked by the local dealer, it was found that the food inside had remained frozen solid.

The cabinet construction was such that a perfect seal of the lid was maintained despite the terrific abuse.

Furthermore, when the freezer was plugged in, the unit continued to function.

Genuine Joe says:

Install sleeve bearings with this NEW Wagner Bearing Tool...

It removes worn bearings and installs genuine Wagner bearings in one easy operation. No hammering—reaming—or spoiling. Write for information today.



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By switching to Suniso Refrigeration Oils, each of these businesses has increased its efficiency and effected substantial savings. The results, condensed into a few words here (full information on request), are typical, not unusual. More and more manufacturers

and service men are turning to Suniso "Job Proved" Refrigeration Oils to protect production, lower costs, assure customer good will. The services of a Sun representative are yours for the asking. Just call the Sun Office nearest to you or write to Department RW-10.

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I-H Plans More Freezer, Standardization of Condensing Units-- Refrigerator Cutbacks

CHICAGO—International Harvester Co.'s refrigerator and home freezer production for the rest of 1951 will be cut back to about 975 units daily, according to an announcement by John L. McCaffrey, president. During the first quarter of the year Harvester's output reached 1,560 units and in the third quarter dropped to 1,014.

Materials shortages were blamed for cutbacks which will be felt even more sharply in the company's farm equipment line.

Still further reductions are expected for the first quarter of 1952.

"Lower production will be reflected in lower employment, although we do not yet know exactly how much or where," said McCaffrey. Between Aug. 15 and now, approximately 2,600 Harvester employees have been laid off in nine factories, he said.

Between May 1 and the present time, production personnel at the company's Evansville, Ind., refrigeration plant has shrunk to 3,750 from a peak of 4,400. Most of the layoffs were attributed to the material shortages, by the company president. However, he added that the company is constantly submitting bids on additional defense contracts in an effort to keep up production and employment.

His statements were included in a letter mailed to employees. He further explained, that if some of the steel for refrigerators was not coming out of inventories, production in the fourth quarter could only be at the rate of 874 units daily.

(Concluded from Page 1, Column 5) mensions of condensers be determined.

"(3) Common bolting dimensions for complete condensing units with height dimension be fixed.

"(4) Interchangeable condenser fan motor and mounting.

"C. That standard type air-cooled compressor using water cooled condensers or in packaged unitary equipment, such as drinking water coolers, refrigerators, and self-contained air conditioning units be established as follows:

"(1) Open compressor.

"(a) Interchangeable compressor having universal type bed plates and interchangeable valve bosses for use of standard inlet and outlet valves for given sizes.

"(b) Compressor speed and range limitations be determined to permit formulation of interchangeability.

"(2) Hermetic compressor.

"(a) Interchangeable compressor having universal type bed plates and interchangeable valve bosses for use of standard inlet and outlet valves for given sizes."

The Standards Agency asked the Quartermaster Corps to obtain this information after the Subgroup for Condensing Units of the task group reported that it could make no further progress without additional help.

This subgroup is one of six which are making separate studies of the entire refrigeration field.

The task group recommended that the detail work required to accomplish the study be contracted to an independent engineering firm for de-

termination of the necessary factual data, according to Lt. Comdr. W. F. Moran, executive officer of the agency.

"Such data," he said in the circulated letter, "may only be obtained after studying physical characteristics of commercial equipment and attempting to arrive at ultimate standard characteristics which may easily be met by all manufacturers and used by all military activities."

Metals Use--

(Concluded from Page 1, Column 2)

use any of the controlled materials in any appliance, machine or electrical equipment item they manufacture.

NPA officials said this move was made to permit manufacturers to reflect rise and fall of consumer demand for the different products in their lines.

Broadly, consumer durables were divided into four groups.

These groups are, in addition to the one already mentioned; furniture, fixtures, and canvas products; most housewares and personal durables; other consumer durables including home furnishings, jewelry, music, sporting goods, and tools.

Controlled materials can be shifted between any products within one of these four groups, but not between products in different groups. This precaution was taken to prevent manufacturers from slighting any one major group, NPA officials indicated.



Detroit Contractors Elect Officers

NEW OFFICERS take over following the annual election of the Refrigeration Contractors Association of Detroit.

WHO'S WHO: Seated are William Schemers, secretary; Charles Heemstra, new president; M. G. Maksym, retiring president; John D. Pheney, legal counsel; Alex McGhie, vice president; (standing left to right) are Mickey Wood, director; Al Weber, past director; George Murphree, director; Charles Purdie, former president; Victor Bush, Jos Heffernan, Irv. Barlass, Tom Quinn, and Jos. Clark, directors. Not present at meeting were new directors Cleo Westerfield and Henry Vian.

Bill Proposes End of Union Shop Elections Under Taft-Hartley Law

WASHINGTON, D. C.—A proposed bill to eliminate the union shop election requirement of the Taft-Hartley law was passed by the House and sent to the White House. The measure had already been passed by the Senate.

Under the present law, a union can be certified by the National Labor Relations Board for a union shop contract only after an NLRB-conducted election.

Under the proposed bill, an employer and a union could agree on a union shop without such election, and the union could be certified by the board. The only qualification is that the union must be in compliance with the non-Communist affidavit and financial reporting provisions of the Taft-Hartley law.

Special provision is included to safeguard workers against a union shop agreement which does not have the backing of a majority of the employees. At any time 30% of a firm's workers could demand an election to determine whether a union shop could be maintained.

The bill could also do away with the need for holding thousands of new union shop and representation elections in certifications invalidated by a recent Supreme Court ruling.

G-E, IUE Agreement--

(Concluded from Page 1, Column 3) recently began talks with G-E under a wage-reopener clause of the contract between the two, said it would not be satisfied with the General Electric-IUE, CIO contract. The UE said "G-E profits for the first six months of 1951 were 212 million dollars as against 137 million dollars last year, an increase of more than 55%. Yet G-E offers its employees a trifling 2 1/2%."

Meanwhile, Westinghouse and the CIO Electrical Workers were scheduled to get together last week to attempt to end a strike which has stopped work on defense orders for more than two weeks.

In-Line Pricing--

(Concluded from Page 1, Column 4) listing of comparable categories in the appendices of Ceiling Price Regulation 7 for a markup. He need not use the more complicated pricing method under Section 39 of the regulation applying, generally, to new sellers.

The extension of in-line pricing is effected by expanding use of Appendices C, D, and F of CPR 7 to give additional categories (generally, numbers 860 through 1070).

Kold-Hold Strike Near End

LANSING, Mich.—Kold-Hold Mfg. Co. and Local 724, UAW-CIO, reached an agreement on contract provisions last week that may end the eight-week old strike at the company's plant here.

The agreement was submitted to the union membership for ratification on Friday, Oct. 12. If it is ratified, the company said that it would call its 170 workers back to their jobs immediately.

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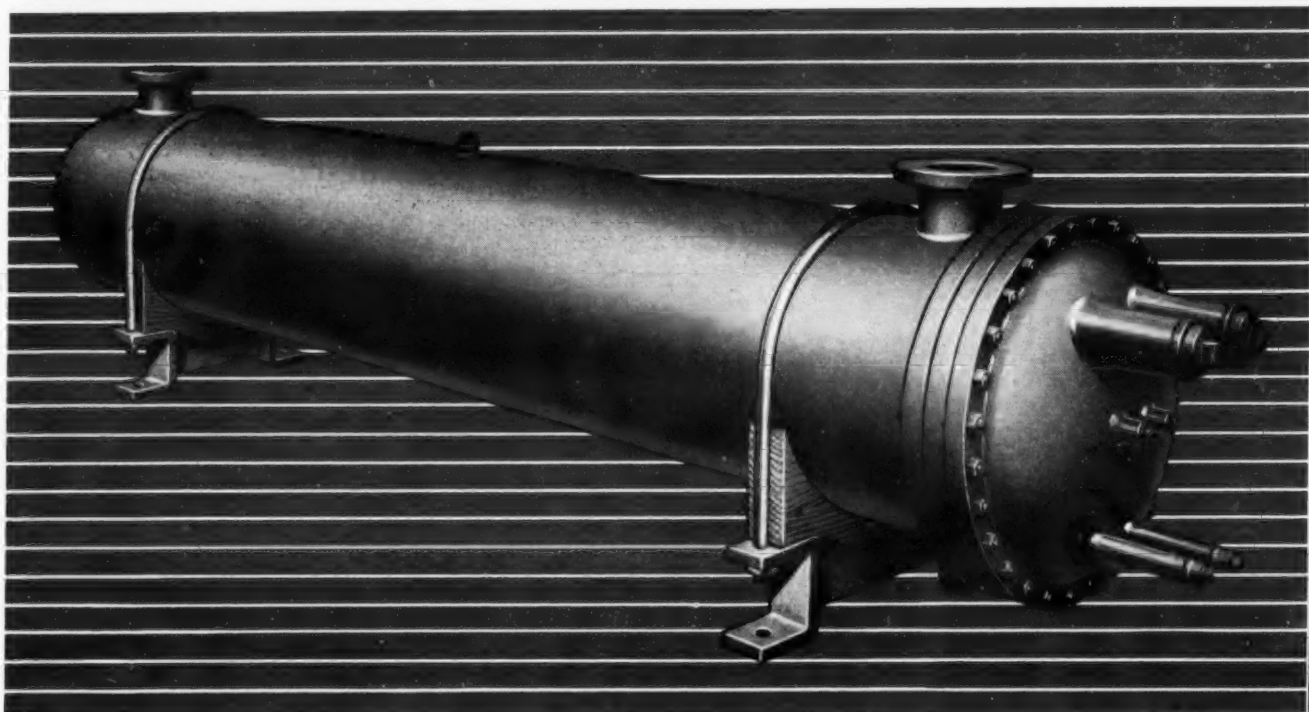
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YOU'LL WANT THE FACTS ON THIS

NEW B & G EVAPORATOR

The B & G Series "HR" Evaporator has always offered distinctive design features which mean more efficient and dependable performance. The construction, for example, which prevents oil-trapping in the head passes and assures uninterrupted oil and vapor flow.

Now, new improvements have been added which make this unit even more desirable.

Easier to install and insulate

Note the new movable steel legs—adjustable to meet various mounting conditions. A heavy hardwood block is furnished for insertion between the shell and support legs—making the unit easier to insulate and preventing damage from condensation.

Piping is made easier, too. The shell connections extend well beyond the insulation cover—a great convenience when installing.

Built to ASME Code Requirements

B & G "HR" Evaporators are constructed according to U-69 Code of ASME regulations and are certified by Hartford Steam Boiler and Inspection Service for 150 lbs. working pressure on both Freon and water side.

Send for new B & G Evaporator Manual—simplified charts and tables make selection easy.



Hydro-Flo

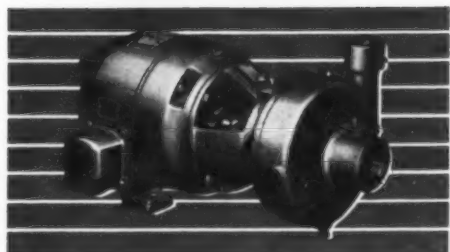
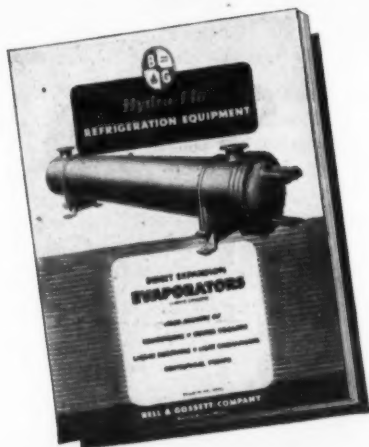
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See the eight reasons why this pump is the "buy" for your cooling tower or evaporative condenser installations. Send for Bulletin CY-350.

Air Conditioner for South Sea Islands Protects Machinery and Equipment from High Humidity

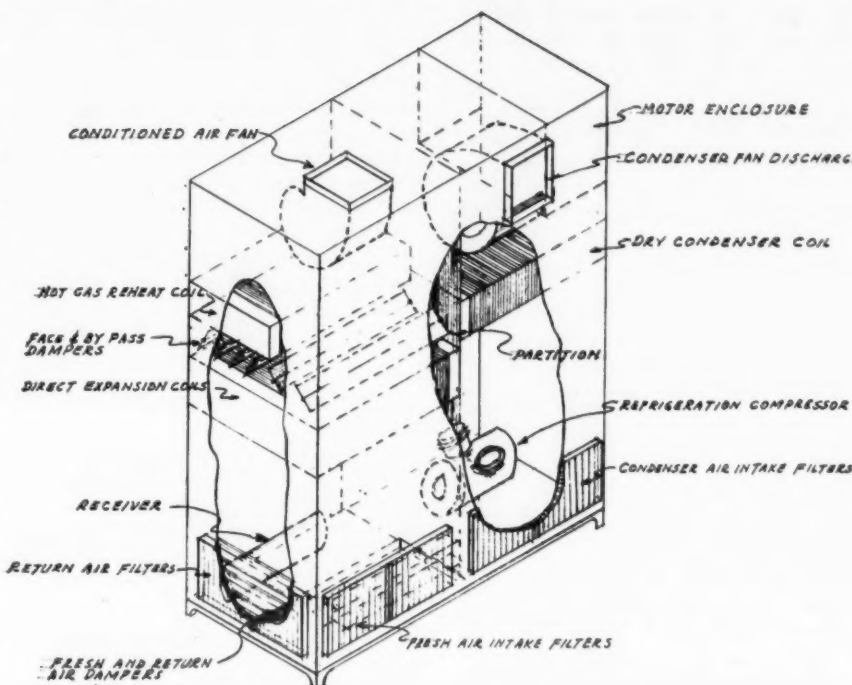
LOS ANGELES—In the South Pacific Islands high humidity resulting from dry bulbs of 82° and wet bulbs of 80° often exists. This extreme moisture content of the air poses problems for the workshop and laboratory. People can go around in shirts and not be too uncomfortable, but such a simple remedy as shorts is not available for tools, equipment, electric motors, and such.

It is necessary in these islands to keep tools and equipment dry to prevent a fungus from growing on them. Another problem posed by the high humidity was the rapid deterioration of windings of electric motors, some windings would deteriorate in a matter of a few weeks.

COOPERATIVE PROJECT

A cooperative development effort by three Los Angeles firms: Hess, Greiner and Pollard, W. S. Kilpatrick & Co., and Refrigeration Engineering, Inc. has alleviated the situation. The engineering problems were not easy to overcome due to restrictions of conditions under which the machine would have to operate. It would have to operate on a minimum of electricity as all electric power on the islands is locally generated.

The machine could not use water as water had to be "made" too, and there was not enough to spare for an air conditioner. While the air was to be dehumidified, the temperature could not be lowered as the workers



HIGH HUMIDITY, ruinous to tools and other equipment in the tropics, is greatly reduced while temperatures stay at normal levels thanks to special adaptation of air conditioner which also permits 5-hp. machine to operate with air-cooled condenser.

were only shorts and going from a lower temperature in the buildings to a higher temperature outside would not be tolerated.

The final machine was an air-cooled unit. It is a 5-hp. self-contained unit

which satisfies all requirements. It removes moisture from the air and re-heats the air up to room temperature by a hot gas re-heat system. The excess hot gas is condensed in a separate condensing coil.

Two fans in the unit take care of the operation. One fan pulls air from the outside over the condenser and forces it outside. The other fan pulls air from the outside or the return as determined by manual damper settings, over the dehumidifying coil, reheat coil or bypass, and forces this conditioned air into the conditioned space. Both fans are on a common shaft.

The unit is made up in a standard Recold No. 140 air conditioning frame. The parts are all of non-ferrous material, mainly aluminum, except the shafting which is of stainless steel. Coils are copper tubing with aluminum fins. All the tubing is made of copper. A Worthington 5-hp. hermetically sealed compressor provides the refrigeration. "Freon-12" is used in the unit.

Motors are fungusproofed and sealed.

HUMIDITY CONTROL

Humidity control is by a wet-bulb controller, water for the wick being supplied by the condensate from the dehumidifying coil; dry bulb control is by face and by-pass dampers at the reheat coil. Temperature controls are Minneapolis-Honeywell electric modulating type.

As fungus growth was the cause of destruction of equipment it was also necessary to protect the air conditioner controls from the destructive elements the machine was designed to disperse. This was accomplished by installing all controls in one panel and having the panel subjected to the conditioned air. The control panel is located in a sealed panel mounted on the front of the unit with ventilating air connections located to provide a continuous flow of return air through the cabinet.

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DETROIT

S. S. Ryndam Passengers, Crew Enjoy Air Conditioning from Bow to Stern

SYRACUSE, N.Y.—The Holland-America Line's S. S. Ryndam, recently in New York after completion of its maiden voyage from Rotterdam, is the first ship of foreign construction to be fully air conditioned since the close of World War II, Carrier Corp. announced recently.

The Ryndam likewise is the first vessel devoted almost exclusively to tourist accommodations to offer air conditioning for the comfort and health of its passengers. The ship carries 854 tourist class passengers and 39 first class passengers.

Like the Line's flagship, the Nieuw Amsterdam, and the Diemerdyk, which was commissioned in 1950, the new Ryndam carries air conditioning equipment manufactured by Carrier Corp. Her sister-ship, the Maasdam, which will be completed in 1952, also will have Carrier air conditioning.

All staterooms, as well as all public rooms, on the ship are completely air conditioned. Similarly, all officer and crew cabins, mess rooms, offices and other auxiliary spaces are air conditioned.

Refrigerated air for the air conditioning system is supplied by two Carrier centrifugal compressors, each of 200-ton refrigerating capacity. Each compressor has its own system, one for the staterooms and the other for the public rooms, but they are inter-connected so that one compressor can work on both systems.

In each cabin temperature conditions can be controlled to a degree by the occupant by means of controlling the flow of conditioned air. A total of 1,000 outlets distributes the conditioned air through the cabins, offices, and public rooms.

Carrier Corp.'s distributor in the Netherlands is N. V. Nederlandse Ariconditiing Mij. Gebr van Swaay.

Are Evaporative Coolers Air Conditioners In Texas?

AUSTIN, Tex.—The question of whether an evaporative cooler is an air conditioner is up before Attorney General Price Daniel for decision.

The expenditure of money by state agencies for air conditioning, except in new buildings, was banned this year by the legislature.

Ten evaporative coolers were bought at a total cost of more than \$2,000 by the Texas Employment Commission. The question went to the attorney general when Comptroller R. S. Calvert refused to approve the bill.

Murray Succeeds Miller In Worthington Post

HARRISON, N. J.—Herman H. Miller, manager of the compressor division of Worthington Pump and Machinery Corp. in Buffalo, has relinquished the management of his division to act as consultant to his successor, E. A. Murray. This was announced by W. H. Feldman, vice president in charge of sales.

Always Look for the Yellow and Black DETROIT Boxes—the Sure Sign of a Good Refrigeration Wholesaler!

How do you tell a good refrigeration wholesaler—by his courtesy, by his speed in filling orders, by his ability to supply you with the product you want when you want it? These are all good points, but more important is the quality of the products he sells. And when a wholesaler stocks and sells DETROIT products, you know he stocks and sells the best. That's because all DETROIT Expansion Valves, Solenoid Valves and Controls are built for dependable, economical performance—to supply your customers with long years of reliable trouble-free performance. So always look for the familiar yellow and black DETROIT boxes on the shelf—the sure sign of a good refrigeration wholesaler!



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DETROIT's successful, hard-hitting plan plugging periodic service checkups now gives you the additional benefit of big, profitable chain store coverage—a rich refrigeration conscious market! In addition, full page DETROIT advertising will continue to stress the importance of proper refrigeration maintenance to your customers in the independent grocery, meat, restaurant, dairy and ice cream fields. It's a powerful plan-building new business for refrigeration servicemen everywhere!



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INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

Philosophy of the Week

Our favorite organization, the Society for the Preservation and Encouragement of Barber Shop Quartet Singing in America, has adopted this slogan:

"The man who is too busy to sing is too busy."

We LIKE it.

Don't you?

"The productions of nature soon become my playmates. I felt that an intimacy with them not consisting of friendship merely, but bordering on frenzy, must accompany my steps through life."—JOHN JAMES AUDUBON.

The standard beginning of the old-time fairy tale was "Once Upon A Time."

Nowadays, more begin: "Due to circumstances over which I have no control."—Kingston (Canada) Whig-Standard.

"Leadership requires more work, sacrifice, and self-denial than the average person is willing to give. Leadership does not come easily—it is not something that is served up to

one without effort. Leadership is something that must be earned."—GORDON O. WILBER.

"The National Research Management Council recently had this to say regarding records in average firms: 1) Less than 10% need be kept permanently; 2) Some 20% must be kept in office space to meet current needs; 3) Approximately 30% should be transferred to storage; 4) Balance might just as well feed a bonfire."—W. E. SEXTON, Office Executive.

News of the Week

HOLLYWOOD—The winsome little girl who played the part of Kathryn Grayson's daughter in the movie revival of "Showboat" is Sheila Clark. She's the daughter of Ansel's Los Angeles district manager, Jim Clark.

Five years old now, Sheila has been dancing, singing, and acting since she was six months from the cradle.

Since our last visit to Chicago there's been another change on North Ave.

That famous sign in the window of a drugstore at North and Cleveland Aves. that advertised "Leeches" has changed.

It now reads: "Penicillin."

State police in Michigan are looking for a thief who got away with \$100 in cold cash from a small town household.

Ivan Palmer, the man who was robbed, declares that the money was taken from a home freezer in the basement of his home.

A resident of Brazil, Ind.—Geneva Mae Pollom (a thin, 20-year-old blond) testified in her divorce suit against Sam J. Pollom, 72-year-old retired coal miner:

"It was just about the last straw, and the most embarrassing thing that ever happened to me, when my husband told the grocer not to charge any more popsicles for me on the family grocery bill."

Out of Our Mailbag

Electric Power Board of Chattanooga
Chattanooga, Tenn.

Editor:

This is to congratulate you and thank you for your wonderful "Silver Anniversary" issue. As an electric utility man, I have been associated with the air conditioning and refrigeration industry over this period in various capacities of service and sales in both domestic and commercial lines.

Late years I've been forced off into other phases of electric utility operating, but still maintain contact with my first love through my crack service unit of 35 men. I receive 30 trade magazines and publications but I read A. C. & R. NEWS. It's great! (especially the editorials).

C. B. OSBORNE

Acme Industries, Inc.
Jackson, Mich.

Editor:

Your Silver Anniversary issue has been received and your entire staff should be congratulated on the accomplishment. Effective as of October 8th, I have been loaned to the National Production Authority which

means that I will spend my entire time in Washington, for the next six months to one year. If you, at any time, come to Washington, I certainly would appreciate your giving me a ring.

J. T. MALONEY

The Bush Mfg. Co.
West Hartford, Conn.

Editor:

I do not believe anyone had any idea of the manner in which this industry of ours has grown during the past twenty-five years until we had an opportunity to review your Anniversary issue.

You may be sure that this is one copy that will remain in our archives for a long time.

E. M. FLANNERY

Baker Refrigeration Corp.

Editor:

In these days of investigations and exposes, perhaps the following story is pertinent. It seems three moles were following the path in their underground tunnel. Suddenly Papa mole, who was leading, stopped, sniffed, and remarked,—

"I smell maple syrup."

Mama mole stopped behind him, also sniffed and said,—

"Smells like corn syrup to me."

Baby mole had to stop and he also sniffed,—

"UGH!" the practical little fellow wailed, "all I smell is molasses."

So it seems that how it smells depends on where you are.

LORIMER DUNLEVY

Atlanta, Ga.

Editor:

Fair Dealers tell you that there is a big difference between their philosophy and socialism, and the Socialists explain that Communism is something entirely different. But all three have much in common.

All three have the same motivations—a hunger for power, an obsession to regulate other people's affairs, including labor's.

All three claim to be mainly interested in the "welfare" of labor and the underprivileged, but—

All three operate to benefit a privileged bureaucracy.

All three preach tolerance and brotherhood, but—

All three incite class hatred.

All three promise more freedom, but provide only more controls—and less freedom.

All three promise the more abundant life, but provide only higher money wages which buy less and less.

All three promise "security," but all three lead to economic chaos and insecurity.

All three are promoting some kind of internationalism, which would level all living standards toward the lowest.

All three, whether in America, England, or Russia, want to divide up America's wealth.

All three, fair dealism, socialism, and communism, are a triple-threat to our American system and way of life.

ROBERT DONNER

Predictions of Things To Come

The free world is moving toward unity and peace, but, a General Electric official has warned, it should not "store the musket in the garret."

Speaking at White Sulphur Springs before a meeting of the Public Utilities Association of the Virginias, Chester H. Lang, G-E vice president, said: "There will be satellite engagements, threatening maneuvers, and continuing efforts by the Russian bloc to hamstring us with unprofitable commitments," but "every day, as we grow stronger, there seems to be less likelihood that Russia will engage in a direct, sudden, all-out attack against the free world."

The G-E official cited as reasons for his optimism the initiative the free world has taken in Korea and at the San Francisco Peace Conference, and the industrial might of the United States that is "an unprecedented force for peace and freedom."

"Korea was the first step in regaining the initiative for peace, because there we demonstrated we simply will not tolerate aggression, anywhere," Lang said.

The San Francisco Peace Conference, he added, "represents the turning point, the start downhill, for Communism as a world movement."

Pointing to America's industrial might, Lang said that Americans are roughly 10 times more productive than the average person, elsewhere on the globe and while only 6% of the world's population, they produce 40% of the world's goods. One important factor of this productivity is the high use of electric power in American industry, he said.

Calling the nation's electrification rate "incredible," he said American industry is now using almost seven kilowatt-hours per manhour, and that by 1955, this number could rise to 10 kilowatt hours per manhour.

Before 1970, American industry will be using a trillion kilowatt hours per year, more than triple the amount now being used in the United States, he predicted.

"With such a vast amount of electrical power at its disposal, America stands in a fair way of bringing about at least a millenium in the world—and with it, a triumph for the cause of freedom," he declared.

Decrying the lack of optimism among the peoples of the world, the G-E official said that nations, industries, or people cannot achieve anything when they are beset by "a thousand calculated fears."

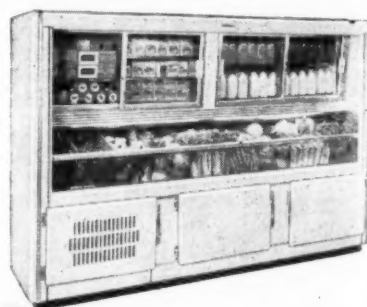
"With the tremendous anticipated advance of the use of electricity, and a similar outlook for other progressive industries in the United States—why shouldn't we be optimistic?", asked Lang.

He added that although Communism is a deadly enemy, "it is unbecoming of the free nations of the world to have such foolish fears of the Communist ogre." Quoting General Eisenhower, Lang said: "the material, intellectual, spiritual, technical, and professional resources available to the free world are so overwhelming compared to what the Iron Curtain and satellite countries have, that it is almost ridiculous for us to be talking in terms of fright and hysteria, which we often do."

Advice of the Week

"It is well for a man to respect his own vocation whatever it is, and to think himself bound to uphold it, and to claim for it the respect it deserves."—CHARLES DICKENS.

WARREN'S UNIQUE RCV PROVIDES 3-WAY SERVICE



THE Warren RCV combination model provides dairy display, produce display, and storage all in one handsome, space-conserving refrigerator. The Warren RCV combination case (patent pending) is the only case of its kind on the market.

Dairy products are displayed and served or self-served from the top compartment, equipped with double-glazed, Thermo-Clear, free-rolling doors.

The middle open display for produce features Warren's own ideal refrigeration for fresh fruits and vegetables: the DEWMAKER. The DEWMAKER provides the cold moisture required to keep most produce garden fresh and salable. Spoilage and shrinkage of highly perishable produce can be forgotten with Warren's famous DEWMAKER.

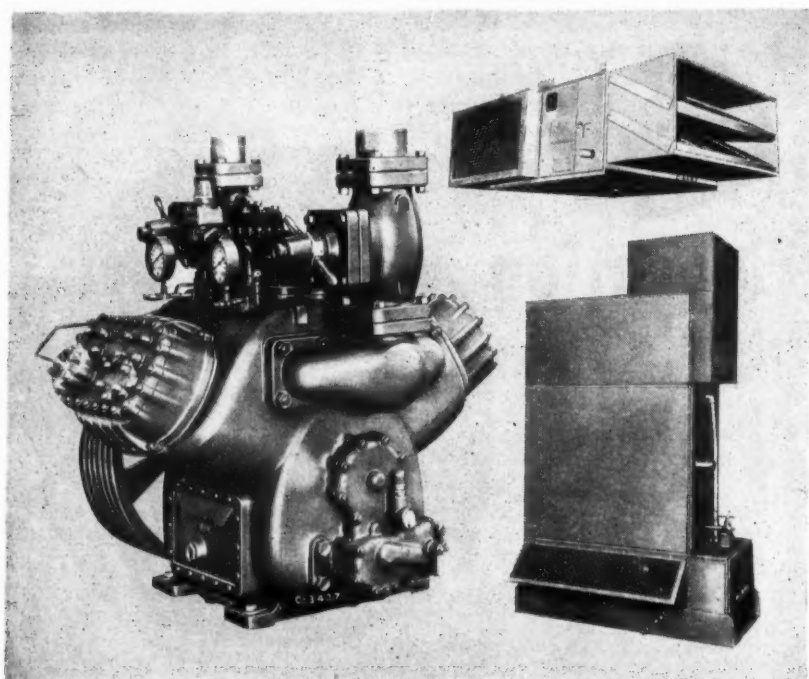
The bottom storage compartment, when equipped with display doors, can also double as an excellent merchandiser of such dairy staples as milk, cream, butter, and eggs.

Each of the three compartments has its own separately controlled refrigerating system. The Warren RCV is fully insulated with Ultra-Lite, and each compartment has a natural drain. The Copelameic Compressor is installed in the 1 ft bottom hinged-door compartment.

The Warren RCV combination model is 109 inches long, 72 1/4 inches high, and 31 1/4 inches wide. The framework is of select hardwood; front, ends, and top are of white porcelain.

For fully illustrated literature and detailed information, write to THE WARREN COMPANY, INCORPORATED, P.O. Box 1436, Atlanta 1, Georgia.

(Advertisement)



Who Sells a COMPLETE Freon Reciprocating System?

A completely integrated and balanced system—all manufactured, not just assembled, by the one manufacturer—that's Worthington.

No other company makes a wider variety of complete Freon reciprocating systems.

No other company offers more perfectly balanced operation of inter-related components—for lowest costs, longest life.

Worthington Freon-12 Compressors and Refrigeration Units. One basic compressor design covers a size range from 2 to 125 tons, with three cylinder sizes. Simplified construction. Lightweight automotive pistons. Worthington Feather* Valves—simplest, lightest, quietest ever made. Internal manifold. Renewable cylinder liners and leak-

proof, continually-cleanable force-feed lubrication in larger sizes. Positive manual or automatic capacity control. Available in self-contained compressor-condenser units.

Worthington Air-Handling Units. Perform complete air conditioning functions. Water cooling or direct expansion. Five sizes: 4 to 60 tons, 4000 to 13,500 cfm. Horizontal or vertical. Sectional design.

Worthington Evaporative Condensers. All parts exposed to moisture made of zinc-coated steel, bonderized and coated with rubber-base enamel containing special rust inhibitor. Prime surface—no fins to clog. Staggered coils permit air deflection and complete wetting. Six sizes from 2000 to 27,000 cfm.

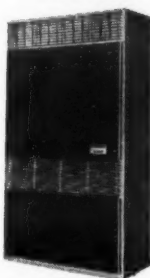
Also: **Worthington Evaporative Coolers** in same range.

A BALANCED LINE ... A BALANCED FRANCHISE

A Worthington distributor can handle any job with exactly the right equipment—because the Worthington line is the broadest.

In addition to reciprocating Freon equipment, Worthington makes—

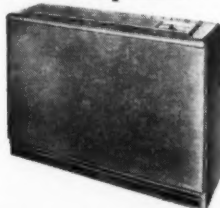
PACKAGE AIR CONDITIONERS



3, 5, 7 1/2 ton units. Also for remote location—7 1/2, 10, 15, 20, 25 ton units

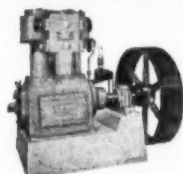
ROOM AIR CONDITIONERS

For use with central system—chilled water or direct expansion



AMMONIA COMPRESSORS

1 to 100 tons
Also ammonia boosters



AUXILIARIES

A complete line of evaporative condensers and evaporative coolers



Also: a complete line of air units, wet and dry product coolers for both Freon "12" and ammonia, water coolers, valves, fittings, pumps

Take advantage of the completeness of the Worthington line and capitalize on Worthington's national advertising. Find out why there's more worth in Worthington by writing Worthington Pump and Machinery Corporation, Air Conditioning and Refrigeration Division, Harrison, N. J. A.18

WORTHINGTON



AIR CONDITIONING AND REFRIGERATION

VISIT US AT BOOTH 103

More Products, Ideas To Be Seen At the All-Industry Exposition

First Showing of United Upright Freezer Set

An array of new equipment will brighten the United Refrigerator Co. booth at the All-Industry Exposition. Industry representatives there will get their first glimpse of the new United upright freezer, 16-tray ice cube maker, under-counter beverage cooler, and 24-tray ice cube maker. And there will still be room in the booth for such standard United items as reach-in refrigerators, beverage coolers, and direct draw beer dispensing systems.

In attendance will be L. U. Schapiro, president; J. C. Gordon, vice president; Fred Payson, sales manager; R. B. Sunblad, production manager; R. E. Mader, comptroller; and salesmen J. C. Battles, M. H. Cobb, J. S. Cortines, D. W. Foss, N. L. Gold, J. P. Hermann, J. E. Oliphant, W. W. Oliphant, C. C. Wallin, Paul Wasson, and H. B. Weeks.

Mack To Show Plastic Refrigeration Parts

Injection, plunger, and compression molded plastic refrigeration components ranging from small molded shelf supports to complete door frames will be exhibited at the Navy Pier by Mack Molding Co., Inc.

On display will be injection molded breaker strips ranging from less than 2 ft. in length to more than 4 ft. Other attractions will include molded crisper trays, separator shelves, and freezer covers.

Expecting to staff the company booth are S. I. Howell, secretary; S. J. Helsper, sales promotion manager; J. A. McIntosh, technical representative; and W. F. Munday and W. A. Coombs, sales representatives.

BTC Low-Temp Metal Shrinker To Bow In

A low temperature metal shrinker will be only one of the new products that the Brewer-Titchener Corp. will bow in at the All-Industry Exposition.

Other new items on display will be a full vision frozen food case, a frozen food display case, a whole blood refrigerator, a hospital utility freezer, and a hospital combination ice cube maker.

Wilson To Display 3 New Products

Wilson Refrigeration, Inc., will be calling attention to two new home and farm freezer models and a new model dry beverage cooler.

The new freezers are model F-160, a 16-cu. ft. upright-type, self-contained unit, and model FH-30, a 30-cu. ft. unit of the same type.

Five other items will be shown. They are a "Zero-Spray" front-opening milk cooler, an upright frozen food and ice cream storage cabinet of sectional design, and three chest-type freezers—model FC-240 (23.5 cu. ft.), model FC-152 (15 cu. ft.), and model FC-82 (8 cu. ft.).

New Series '50' Doors To Be at Jamison Booth

The new Jamison series "50" cold storage door will take its place in the complete line of doors that the Jamison Cold Storage Door Co. will show the industry at the Navy Pier.

McCord To Exhibit New Line of Condensers

Visitors to the McCord Corp. booth at the Navy Pier will see the firm's new lines of air cooled domestic and commercial condensers and plate type condensers. Water-cooled condensers will also be shown.

Jewett To Display 2 Refrigerated 'Bevadors'

Two Jewett Bevador refrigerated bottle-beverage merchandisers will be displayed in the Jewett Refrigerator Co., Inc. booth at the Navy Pier.

White-Rodgers To Show Ice Bank Control

White-Rodgers Electric Co. will play up its ice bank control, which reacts to the thickness of the ice bank instead of to temperature.

Several other items will be exhibited. These include defrost timers, air conditioning thermostats and controls, refrigeration temperature controls, and refrigeration pressure controls.

General To Show Refrigerant Distributors

A new group of refrigerant distributors will be shown at the Navy Pier by the General Controls Co. New items include flanged fitting solenoid valves, high flow, three-way solenoid valves, "Freon-22" controls, and mobile refrigeration equipment controls.

Other items displayed will be a complete line of pressure, temperature, and flow controls for refrigeration and air conditioning applications. Thermostats, solenoid valves, motor operated valves, strainers, pressure switches, thermal expansion valves, time clocks, and temperature switches are among them.

Ideal To Introduce 2 New Commercial Cases

Ideal Cooler Corp. plans to introduce a new flat top dry beverage cooler and a frozen food merchandiser at the All-Industry Exposition. Both of the new units are self-contained.

Visitors to the Ideal booth will also get a look at the companies 45-case self-contained dry beverage cooler, its 42-case remote dry beverage cooler, and its 2½-barrel instantaneous draft beer cooler.

Warren To Concentrate on 8-Ft. Frozen Foods Case

Visitors' attention will be concentrated upon three new products at the Warren Co., Inc. booth in Chicago.

The firm's entire space will be devoted to promotion of its new 8-ft. open, self-service frozen foods case, semi-self-service dairy and produce refrigerator, and 11-cu. ft. spot freezer with mirror and lighted canopy.

Barkow To Star 18-Ft. Vertical Freezer

Aug. G. Barkow Mfg. Co. has a new model to show off at the exposition.

It's the 18-cu. ft. "Barkow Cold Shelf Vertical Food Freezer." This model is equipped with a hermetically-sealed condensing unit and freezer shelves.

The company's model F-14 cold shelf vertical food freezer will also be on display.

New Dough Retarder To Be In Victory Booth

A stainless steel front, all-metal dough retarder and salad unit is the Victory Metal Mfg. Corp.'s contribution to the new product parade at the All-Industry Exposition. The unit will be available in both self-contained and remote models, the manufacturer said.

At the Victory booth, visitors will also be able to examine the Vimco line of stainless steel refrigerators and Sta-Kold stainless steel front refrigerator, sandwich units, beverage coolers, wall cases, and direct draw beer units.

Superior To Display New Liquid Indicators, Valves

A new assortment of liquid indicators, ammonia relief valves, globe and globe check valves, and dehydrators will highlight the Superior Valve and Fittings Co. display at the All-Industry Exposition. They will be shown against a background of the firm's regular lines of valves, fittings, and installation accessories.

Refrigeration Appliances Has Air Handling Line

Floor-type air handling units (5 to 50 tons) are among the new products which Refrigeration Appliances, Inc. is planning to show.

The company reports it will display these other items: 3, 5, and 7½-ton ceiling-type evaporative condensers, all-copper maritime gravity coils, and below-the-window, remote-type comfort coolers.

Booth visitors will see products with these trade names: "Fan-E-Fex," "Strat-E-Fex," "Flo-E-Fex," "Freez-E-Fex," "Comf-E-Fex," "Breez-E-Fex," "Zer-E-Fex," "Strat-E-Fex Jr.," "Fan-E-Fex Jr.," and "Draft-E-Fex."

Jordon To Display Additions to Case Line

Seekers after new products at the All-Industry Exposition will find the Jordon Refrigerator Co., Inc. offering them a 15-cu. ft. upright freezer, a self-service dairy product merchandiser, and a line of display reach-ins.

The freezer is completely self-contained with freeze-plate shelves and hermetically-sealed refrigeration system.

The dairy merchandiser is especially designed to match current self-service frozen food and ice cream merchandisers. The model on display will have a shelf capacity of more than 17 sq. ft.

The reach-ins are equipped with sliding Thermopane glass doors and feature the exclusive Jordon ceiling mounted, high humidity coil and air circulator.

Of continuing interest are the Jordon bottled beverage coolers and all purpose refrigerators in both under-bar and counter type models, sliding door frozen food and ice cream merchandising cabinets, two-temperature reach-in refrigerators, and the model OF-9 glass front frozen food and ice cream merchandising cabinet.

The Jordon line-up at the Show will include Harry Fogel, vice president in charge of sales; Robert J. Duffy, general sales manager; Alfred Levin, advertising manager; John E. Mack, assistant sales manager; and Joseph H. Wiley, Chicago area factory representative.

Gilmer To Feature Shock Pad To Lessen Vibration

A shock pad for checking vibration and vibration noise on household and light commercial equipment will be shown at the booth of L. H. Gilmer Co. The Gilmer shock pad requires no cement for installation, is not affected by water, oil, or cleaning compounds, and does not harden.

In addition, Gilmer V-belts will be shown in a complete line that includes multiple V-belts for commercial and industrial drives; also sheaves and Gilmer friction and rubber tape.

The following personnel will man the exhibit:

W. E. Combs, sales manager; and E. F. Wood, assistant sales manager. Division managers A. B. MacFarland, N. R. Chapman, R. E. Bruce, H. B. Snyder, W. W. Conard, and W. H. Taylor. District managers G. C. Fritschmann, R. L. Bentz, G. A. Grone, R. C. King, L. D. Strong, W. J. David, and P. H. Eckert.

On this page are more stories previewing the booths to be seen at the All-Industry Show.

Information from these exhibitors arrived too late to be included in the Oct. 8, Pre-Exposition Issue. More stories will be found on page 21.

Coldin To Introduce 3 Commercial Cases

Three additional pieces of equipment being added to the Coldin line of commercial cases will have their premiere at the All-Industry Exposition. The Coldin Cabinet Co., Inc. will show for the first time an 8-ft. open dairy display case for continuous application, a 4½-ft. self-contained beverage wall case, and a 4-ft. full vision display case in spotlighter motif.

Other cases in the firm's big booth will include a 16-cu. ft. freezer with sliding glass doors, a 6-ft. full vision Formica top counter display case, the same case in triple duty style, and a 6-ft. self-contained open type freezer.

New 2-Deck Lingle Case Will Go on Display

New in the space of Lingle Refrigerator Co., Inc., will be a self-service, self-contained medium-temperature case with two decks, the company announced.

The Kansas City, Mo. firm will also display a double-duty, open, self-service meat and vegetable display case.

displays MORE BTC sells MORE

the handsome new Glass Front display case



Better make space in your showroom for this smart-looking, new BTC Glass Front Display Case! It's a profitable cabinet every retailer will want because it displays frozen foods better—sells them faster.

- **FLUORESCENT-LIGHTED INTERIOR . . .**
shows off foods stored within—holds a full 10 cubic feet in only 53" x 30" floor space!
- **EXCLUSIVE "HIDE-A-WAY" LID . . .**
is self-contained, fully insulated—slides under rear deck when cabinet is opened!
- **PLUS THESE BTC FEATURES . . .**
Quadruple Thermopane glass front—4 compartments—full-color, 3-dimensional picture—gleaming white enamel finish—all-steel bonderized cabinet—½ H.P. hermetic compressor—vapor-sealed insulation—lateral plate evaporators—5-year compressor warranty.

Learn the full facts on this profitable new cabinet—write Brewer-Titchener today! Ask for a Glass-Front Display Case Bulletin.

MODEL SS-5310-D with superstructure.
Also available without superstructure.

DISPLAY **BTC** CASES

The BREWER-TITCHENER Corporation
BINGHAMTON • NEW YORK

Visit Booth 302-304 ALL-INDUSTRY EXP., Navy Pier, Chicago, Nov. 5 to 8



**CLEANABLE
WATER-COOLED
CONDENSERS**
More Efficient Double-Tube
Counter-flow Design

1/2 to
25-Ton
Capacity

Acceptance in the field is rapidly changing to "Demand" for these efficient, more economical Cleanable water-cooled Condensers. Owners and service men prefer the "new unit" efficiency that can always be maintained by a simple cleaning process. Brass headers, machined and brazed.

Write for Catalog and Prices
WHOLESALE IN PRINCIPAL CITIES
Halstead & Mitchell
BESSEMER BLDG. PITTSBURGH 22, PA.

JUST ASK US!

Turn to "What's New" Page for useful information on new products.

V. I. P. Incentive Plan

New York Trips with Attentions Usually Reserved
For Celebrities Make Good Sales Contest Prizes

NEW YORK CITY—The plane circled the Newark Airport, dipped and landed, depositing two passengers, the driver of an oil truck for Shipley Cooling and Heating of York, Pa., and his wife—"just folks" off for a fling at V.I.P. living. Their first plane ride in a private Shipley plane (for use by big brass) and their trip to New York just ahead, were the result of the new V.I.P. Incentive Plan which offers hardworking Joes a chance to realize some of their big shot ambitions.

TREATED IN ROYAL STYLE

The V.I.P. buildup for the Shipley couple began with a luxuriously appointed room at the Park Sheraton, overlooking Central Park. It gathered momentum when they walked into the imposing English Grill on Rockefeller Plaza, where, instead of receiving a quick brushoff from the frosty faced major domo, they were welcomed and led to a choice, reserved table. Hovering headwaiters, and solicitous proprietors were part and parcel of this luxury lined weekend, studded with hit shows, excursions into Manhattan's favorite wining and dining corners and brushes with celebrities to tell the neighbors about back home.

How did it happen?

The driver won this V.I.P. New York Weekend for two in a Shipley Tipster Contest by tipping off a salesman to the lead which brought

in the greatest amount of business. The organization which softened up the city's hardened stewards, obtained tickets—front and center—to hit shows at box office prices, and rolled up the red carpet generally was V.I.P. (Very Important People) Service, Inc.

One of V.I.P.'s specialties is arranging glamorous trips sold to companies as a package for contest prizes. In providing the priority V.I.P. handling which has earned its trips the spotlight, V.I.P. even furnishes its own Grover Whalens, hosts who are on hand within minutes of a winner's arrival to extend the genial handshake of welcome so lacking on the big city's impersonal shores.

COMPLETE CONTEST SERVICE

Along with the prize trips, a complete contest service is available. This service, which can also be bought as a package, includes the contest idea, boosters, streamers, home mailings, judging, photographic coverage, merchandise prizes, and the major plum, a V.I.P. trip to New York—Bermuda—Hollywood—Mexico City.

SHIPLEY HAS 5 CONTESTS

Shipley has run five V.I.P. Incentive contests—they have a way of gathering momentum from one to another. One reason is that each trip is spiked with something unexpected, verging on the spectacular. For example,



V.I.P. CONTEST WINNERS are interviewed at the "Luncheon at Sardi's" radio program by Buddy Rogers and Bill Slater.

while the Shipley couple were lunching at the Hotel Taft, Vincent Lopez dropped by at their table to chat; presently a photographer came along and snapped an informal shot of the group, later reprinted in the Shipley house organ and home town paper. Celebrity meetings like this, another V.I.P. feature, start the whole company talking!

INCLUDE THE WIFE

A pretty good clue to the way the V.I.P. Incentive is dramatized can be found in contest titles used by various companies: "Big Shot Weekend," "Millionaire's Weekend," "Celebrity Weekend," "Weekend with Fred Waring. . . ." In each of these contests the prize trip was for two, the winner and his wife, another V.I.P. innovation—the idea being that you step up contest participation when the little woman is in there stirring up enthusiasm.

Most women would trade their Easter bonnet for a chance to escape the daily dishes and dusting and this is added ammunition to be used in the contest buildup, highlighting features of the trip designed to catch her fancy: breakfast in bed, dancing lessons at Fred Astaire or Arthur Murray's, little things her husband has neither time nor money to give to.

BABY SITTERS FURNISHED

The master stroke in winning over the ladies in one contest, "Second Honeymoon," was providing baby sitters for the entire weekend! A concentrated pitch to wives was made in this contest through mailings sent directly to the home!

In the General Electric contest, "Weekend with Fred Waring," the winning wife got a sample of V.I.P.'s

catering to the fairer sex shortly after arriving. She and her husband were unpacking in their Waldorf suite (complete with television) when a messenger wrapped at the door to give her a corsage of orchids. Next morning a hairstyling appointment was waiting at one of Manhattan's elite beauty establishments. As an added filip, a \$200 shopping credit was set up for her at Lord and Taylor's and another for the same amount for her husband.

The G-E weekend was conducted on a particularly elaborate scale. The winning couple, flown in from South Carolina, was met at the Newark airport by a welcoming committee of six, including a photographer, two of Fred Waring's henchmen, a V.I.P. Host and G-E publicity man and host, plus a brace of limousines to conduct the party over the Hudson to Manhattan.

This couple appeared on the Fred Waring television show Sunday evening after spending three fabulous days on the town, meeting Rudy Vallee, Mary Martin, Faye Emerson, and a host of other V.I.P.'s, all in the company of Fred Waring—at the Stork Club, Twenty-One, Gallagher's, Diamond Horseshoe.

INCENTIVE PLAN HAS MANY APPLICATIONS

The V.I.P. Incentive has been put to use in diverse ways: to raise safety standards, in the ever popular "I like my job because" contests. An insurance company uses it as a regular salesman of the month prize—the manager of this company became a customer after he had won a New York Weekend at a charity drawing. Another uses the New York weekend to increase sales and at the same

(Concluded on next page)



Here's a display of current direct mail pieces—developed by Wolverine Tube Division—as a part of our sincere effort to give wholehearted help to wholesalers.

WOLVERINE TUBE DIVISION
Calumet & Hecla Consolidated Copper Company
Incorporated
Manufacturers of seamless, non-ferrous tubing
1413 CENTRAL AVE. • DETROIT 9, MICHIGAN

Sales offices in Principal Cities
Plants in Detroit, Mich. and Decatur, Ala.

Wolverine Mill Depots:
DETROIT, MICH. • DECATUR, ALA. • HOUSTON, TEXAS
LOS ANGELES, CALIF. • LONG ISLAND CITY, N. Y.
PHILADELPHIA, PA. • PROVIDENCE, R. I. • ST. LOUIS, MO.
Export Department, 13 E. 40th St., New York 16, N. Y.

YOU'RE SELLING SATISFACTION

with every

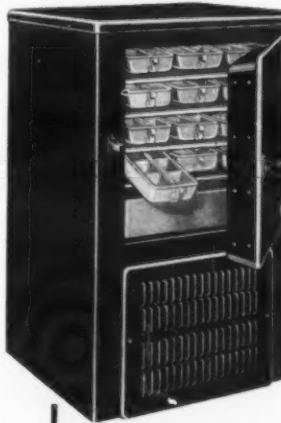
LA CROSSE CUBE MAKER



MODEL 596

MODEL 592

MODEL #596 produces over 2,000 cubes per day at about 5¢ a bushel.



The "Eskimo," MODEL #592 produces over 1,500 cubes per day with 1/4 h. p. compressor.

Greater cube production if larger size compressor is used.

These compact cube makers utilize every bit of space to produce and store more and more perfect ice cubes . . . no complicated mechanism to steal production and storage room . . . no moving parts to wear out . . . no service headaches . . . designed with economy in mind they're time tested and proved—your assurance of complete customer satisfaction.

LA CROSSE COOLER CO.

2801 Losey Blvd. S.
La Crosse, Wis.

EXPORT REPRESENTATIVES.

Melvin Pine & Co., 80 Broad St., New York, N. Y. Cable Address: Eximport

Winners and Wives Get Royal Welcome Everywhere and Meet Celebrities

(Concluded from preceding page)
time create more fraternal feeling between management and labor in its annual President's Contest.

V.I.P. also owns a radio and television program, "Cinderella Weekend," which has been used by sponsors to promote contests. This program offers a New York Weekend to the quiz winner of the month (a member of the studio audience). When used for contest promotion an additional weekend is offered to the listening or viewing audiences, plus a merchandise prize, often the sponsor's own product. To qualify, a contestant is required to pick up an entry blank from a dealer or to send in a label or purchase slip.

The V.I.P. contest department is a natural outgrowth of a unique kind of travel and entertainment service which Manhattanites Bill Murphy and his wife, Charlotte, have provided for people away from home who want to travel deluxe without being "taken" since 1946. At a moment when hotel, travel, and entertainment, even dining and accommodations, were at a premium, the Murphys envisioned a path-smoothing service which would give civilians the priority handling then enjoyed by Uncle Sam's V.I.P.'s.

WESTINGHOUSE SALES MANAGER AIDED V.I.P. FOUNDERS

They first approached large companies to sell them on the idea of providing this service for traveling officials and company customers. In all quarters but one the idea of receiving such a service free was received with genuine skepticism, bordering on suspicion. The exception was Arthur Sullivan, advertising manager of the Westinghouse Electric Supply Co. He admired their ambition in trying to make a go of a new idea and arranged for a monthly item to be published in the Wesco Reporter so that employees could take advantage of the V.I.P.

JUST ASK US!

Turn to "What's New" Page for useful information on new products.

service on vacation trips.

Sullivan also gave the Murphys a few words of advice, "Charge a fee. People aren't used to getting something for nothing!" Murphy took the Westinghouse chief's advice and shortly landed a large company as a customer, one of a number the agency still services today on a retainership basis.

When V.I.P. entered the contest field about a year ago Bill Murphy was sitting pretty as far as his tie-ups with manufacturers were concerned, to furnish his contest packages with merchandise awards at a low cost. This was due principally to another angle of V.I.P. service: since the dawning of the quiz age on radio and television, V.I.P. has furnished most of the major quiz shows with their giveaways—everything from electric percolators and dog biscuits to prefab houses. This puts him today on top of what he dubs the One, Two, Three of merchandise awards:

(1) *Know What* the average person wants (2) *Know How* to get it at a good price and (3) *Know Whom* to contact.

PACKAGES OF ANY SIZE

Packages come all sizes and prizes. A Kroger contest now in the making will award merchandise prizes consisting of such items as electric stoves, sewing machines, and other appliances. Another large order is for the Lux division of Lever Brothers. The three top prizes are a V.I.P. New York Weekend, a V.I.P. Hollywood Weekend, and a V.I.P. Bermuda Weekend. Merchandise awards run the gamut of luxury items from fur coats to diamond rings—prizes alone will run in the neighborhood of \$100,000. Both are consumer contests, big operations.

At the other end of the scale is the V.I.P. New York Weekend which comes as low as \$150 for two people, with a high of about \$500—the average runs from \$250 to \$300. A moderate fee over the actual cost of the weekend is charged by V.I.P. which takes care of all arrangements and expenses, even tipping.

Once a salesman took his all-expense-paid weekend too literally. He

walked into his hotel men's shop and ordered a sport jacket costing \$150. Then he turned around and told the clerk to call Room Service and have them bill him for \$150 worth of Scotch (alcoholic beverages were included in the weekend). When V.I.P. got the bill it scotched that one!

The answer to why V.I.P. can deliver merchandise awards and its other contest services: e.g. printing, artwork, etc., at such low prices is simple—it assures a steady volume of business to manufacturers, printers, artists, paper companies, copy writers. It boils down to this: V.I.P. can often handle a complete contest package, particularly for the little fellow for what he would ordinarily lay out on physical requirements alone, plus the V.I.P. trimmings, usually the difference in pushing a contest over the top.

LAST MINUTE BRAINSTORMS

Last minute brainstormers, the Murphys find, are often touched with real inspiration; for this reason they encourage 11th hour suggestions. At the conclusion of one contest someone got the bright idea that a salesman's customers ought to get a little credit for helping him win. They put this idea into action that same afternoon and bundled off 500 picture postcards showing views of New York, with a note suggesting they be sent to his customers and mailed from New York, on the prize trip.

The salesman received the idea with enthusiasm, got help addressing the cards and wrote a little note on each one with a "Thank you for helping me win." No amount of high pressure salesmanship could have brought about the windfall of goodwill which followed in the wake of this gesture.

Science Talent Search

Westinghouse Scholarships Will Go To High School Students with Promise

WASHINGTON, D. C.—The annual hunt for the best potential scientists among the nation's high school seniors is about to start. Budding scientists in public, private, and denominational schools throughout the United States today were invited to compete in the eleventh Science Talent Search.

Winners, to be chosen for their "outstanding potential for future achievement in science," will share \$11,000 in Westinghouse science scholarships. The top boy or girl entering the competition will receive a \$2,800 scholarship, and 39 other finalists will vie for Westinghouse scholarships ranging from \$2,000 to \$100.

HOW TO ENTER CONTEST

To enter the Search students must report on an original science project and take a stiff science aptitude exam. Their schools must submit the students' scholastic records and teachers' estimates of their ability. All entries must be completed and received in Washington, D. C. by midnight, Thursday, Dec. 27, it was explained by Watson Davis, director of Science Clubs of America, which conducts the competition.

The 40 outstanding boys and girls will be brought here next March for final judging which will take place during a five-day Science Talent Institute. Scholarship winners will be

announced at the conclusion of the institute.

In addition, 260 other boys and girls who "show excellent promise of becoming creative scientists" will receive honorable mention citations.

The Search is sponsored by the Westinghouse Electric Corp. It is conducted by Science Clubs of America through Science Service.

Since the Search began in 1942, more than 140,000 students have entered one or more phases of the Search. Twenty-five thousand, including about 6,000 girls, have completed entry requirements. Westinghouse science scholarships worth \$110,000, have been awarded to 302 boys and 98 girls. Twenty-six hundred others have been recognized as "potential scientists."

23 STATES HAVE OWN CONTESTS

Twenty-three states are running their own science talent searches concurrently with the national competition this year, so high school seniors in these states will have two chances at scholarships—nationally and within their state. These 23 states are: Connecticut, District of Columbia, Georgia, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Massachusetts, Minnesota, Montana, New Hampshire, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Vermont, Virginia, West Virginia, and Wisconsin.

You get more . . .
you save more with

CHEVROLET

ADVANCE-DESIGN TRUCKS

First in demand
First in value
First in sales

Whatever the job you have for a truck, Chevrolet has the truck that's right for your job! It's a new Chevrolet Advance-Design truck, built to cut your trucking costs down to

rock bottom. Saves you money when you buy, because the purchase price is low. Saves money right along, because no other truck in its price class offers the great combination of ruggedness, durability and economy you get in Chevrolet. Just look at the extra value features that make Chevrolet trucks stand up better, handle easier, cost little to run and maintain. Your best truck deal is the deal you get on a Chevrolet Advance-Design truck at your Chevrolet dealer's.

CHEVROLET DIVISION OF GENERAL MOTORS
DETROIT 2, MICHIGAN



ADVANCE-DESIGN TRUCK FEATURES

TWO GREAT VALVE-IN-HEAD ENGINES—the 105-h.p. Loadmaster or the 92-h.p. Thriftmaster—to give you greater power per gallon, lower cost per load • POWER-JET CARBURETOR—for smooth, quick acceleration response • DIAPHRAGM SPRING CLUTCH—for easy-action engagement • SYNCHRO-MESH TRANSMISSIONS—for fast, smooth shifting • HYPOID REAR AXLES—for dependability and long life • NEW TORQUE-ACTION BRAKES—for light-duty models • PROVED DEPENDABLE DOUBLE-ARTICULATED BRAKES—for medium-duty models • NEW TWIN-ACTION REAR BRAKES—for heavy-duty models • NEW DUAL-SHOE PARKING BRAKE—for greater holding ability on heavy-duty models • NEW CAB SEATS—for complete riding comfort • NEW VENTIPANES—for improved cab ventilation • WIDE-BASE WHEELS—for increased tire mileage • BALL-TYPE STEERING—for easier handling • UNIT-DESIGNED BODIES—for greater load protection • ADVANCE-DESIGN STYLING—for increased comfort and modern appearance.



BETZ PANEL UNITS

FOR MOUNTING
ON BACK WALL
OR MULLION
for
REACH-INS
DOUGH RETARDERS
OR PASS THRU'S



Vertical discharge drip pan — oilless motor — baked enamel finish — and other outstanding features.

MODEL NO.	BTU AT 1" TD	CFM	SURFACE SQ. FT.	DIMENSIONS		
				H	W	D
130-R	130	204	48.64	34 1/4"	17 1/4"	9 1/8"
190-R	190	285	68.56	34 1/4"	22 3/4"	9 1/8"
260-R	260	385	85.50	34 1/4"	22 3/4"	10 5/8"

See Them at Your Wholesalers

BETZ CORPORATION

HAMMOND • INDIANA

Soda Fountain Operator Keeps a Ton Of Fresh Fruit on Hand In Walk-In

BILOXI, Miss.—Installing sufficient refrigeration to keep a ton or more of fresh fruits on hand the year around has made it possible for Melvin Ness, soda fountain operator here, to sell 185,000 malted milks a year in a town of less than 30,000 population.

Ness is owner of a small ice cream manufacturing plant in this gulf coast resort city, plus a convenient air conditioned, 21-stool soda fountain. The fountain, constructed of stainless steel and equipped with a Bastian-Blessing carbonation system, is jammed daily.

"The whole secret is fresh fruit the year around," Ness said. "We found, through visiting other soda fountain operators around the country that invariably it is synthetic syrups and flavors which take the flavor out of fountain drinks. Therefore, we resolved five years ago to concentrate entirely on fresh fruit."

In order to keep on hand the quantities of fresh fruits necessary for his outstanding volume, Ness built a 10 ft. by 12-ft. low-temperature refrigerator in the basement. The box is equipped with a 1½-ton condensing unit and two overhead circulating blowers, which can provide a temperature ranging all the way from 0° to 35° F., as required.

Stored in the walk-in box as the season permits are strawberries, blackberries, cherries, pineapples, peaches, etc. All are bought when they are at their best flavor and are kept under refrigeration until needed.

Fresh supplies of fruits are issued each day, gauged against the preceding day's volume. But even with the storage capacity of the walk-in, it has been necessary for Ness to request express shipments of more frozen fruit to keep up with volume.

Malted milks, at 23 cents, and featuring fresh fruit flavors exclusively, sell at the rate of 185,000 a year. Meanwhile, the ice cream plant produces 125,000 gals. of ice cream a year, much of it flavored with fresh fruit, while the plant also sells 1,500 gals. of milk per day.

Supermarket's 'Coke' Vendor Boosts Carry-Home Carton Sales

WACO, Tex.—The presence of a prominently-located, 5-cent drink bottle vendor, in a bay at the front of the new Safeway Supermarket here, has been responsible for the sale of many more "carry-home" six-bottle cartons of popular beverages—says J. H. Berkel, manager.

The big Coca Cola vendor, which will hold 78 bottles, is so situated that it may be easily seen from almost any place in the supermarket, and on a hot afternoon, many housewives stop to regale and refresh themselves with a "cold Coke." The tasty refreshment which the popular beverage provides is a "natural" for calling attention to a mass display of carry-home cartons just across the aisle from the vendor.

Refrigeration Helps New Jersey Bakery Operate More Efficiently



Refrigerated Display Case, Dough Retarders, Walk-In, Air Conditioning Included

SOUTH ORANGE, N. J.—Refrigeration services are found both in the basement and on the sales floor of the modernized Romoser's Cake Shoppe here.

A specially designed walk-in refrigerator to store eggs, butter, fruit and bakery perishables was built in the basement of the Romoser store. It measures 8 by 10 by 6 ft., and is equipped with Bush blower coils and has specially built Jamison doors. Temperature is maintained at around 36° F. A 7½-hp. General Electric condensing unit furnishes the refrigerating effect.

By means of this basement walk-in box, Proprietor Max Romoser reports that he is able to keep a constant supply of bakery ingredients on hand at all times, enabling him to turn out orders quickly and carry out his policy of quick service to the trade.

Also, the basement refrigerator serves as a storage place for cakes and other completed desserts to keep them fresh and palatable and immediately available to customers.

On the showroom floor, a special 6-ft. display case was hooked up for refrigeration and built to conform to the style of the other showcases.

The store is air conditioned not only in the retail section, but also in the special order room and office in the back. Outlet grilles are located back of the shadow boxes on the upper walls of the sales floor and are not visible. Year-round air conditioning is provided by a General Electric system.

The production department in the rear of the store is equipped with seven Federal refrigeration cabinets functioning as dough retarders, in 4-section and 3-section units.

Copeland condensing units were used together with a Kramer-Trenton evaporative condenser.

Romoser attributes a sharp increase in special orders to the more comfortable atmosphere provided by the installation of air conditioning, and also gives it credit for improvement in employee morale.

The refrigeration installation was under the direction of Erwin Geiger of Irvington, N. J., with the cooperation of The Birn Co. Newark.

TOP—Center showcase at Romoser's Cake Shoppe, South Orange, N. J., for display of perishable cakes and whipped cream specialties, is refrigerated and specially designed to conform to other showcase fixtures in store. Outlet for air conditioning ducts is in gulls in two shadow boxes on walls, one of which is shown above the case.

BOTTOM—In the production department in the rear of the store are several Federal refrigeration boxes for dough retarders, built in 4-section and 3-section units.

HOT SALES TIP

Here's how to make
EXTRA PROFITS
from your present
refrigeration customer list



1 SEE 'EM

Go over your list . . . many of your customers and prospects have pressure-lubricated compressors. And each one is a logical prospect for the PENN Series 275 Oil Protection Control.

2 TELL 'EM

Explain how low oil pressure or slow pick-up of oil pressure can damage seals and bearings. And it can happen at any time even in the best of refrigeration compressors.

3 SHOW 'EM

If oil pressure does not build up to the proper point when compressor starts . . . or if oil pressure drops during

running cycle . . . the PENN Series 275 Oil Protection Control stops compressor operation automatically.

4 SELL 'EM

Every owner of a pressure-lubricated compressor needs this positive, automatic protection. It's easy to sell . . . ask for the order.

For extra profits . . . sell the Series 275. Get the facts . . . ask your manufacturer, wholesaler or write Penn Electric Switch Co., Goshen, Indiana. Export Division: 13 East 40th Street, New York 16, U.S.A. In Canada: Penn Controls Limited, Toronto, Ontario.

PENN
AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, PUMPS, AIR COMPRESSORS, ENGINES, GAS RANGES

HUSSMANN REFRIGERATORS--



ARE SCIENTIFICALLY DESIGNED IN BALANCE WITH

HUSSMANN REFRIGERATION

The complete HUSSMANN Line of Display Refrigerators is designed to meet every selling need in the modern food store. And, balanced to HUSSMANN Refrigeration Systems, each unit is designed to meet every Refrigeration need, as well! You can recommend HUSSMANN with complete confidence.

HUSSMANN

HUSSMANN Refrigeration, Inc. • Hussmann Bldg. • St. Louis 6, Mo.
Ruddy Freeborn Co., Ltd., Brantford, Ont., Hussmann Canadian Subsidiary



OPERATING INSTRUCTIONS on window unit serving kitchen originally used by Botsford Inn are given to Mrs. Bertha Finger, manager, by S. J. Janczarek of Refrigeration Service, Inc., in the presence of the new owners: John N. Anhut (left) and his son John W. Anhut (right).



PAINTED WHITE, window units blend inconspicuously into the main dining room of Botsford Inn. Note the low ceiling which ruled out ductwork or larger package units.



WINDOW UNIT in private dining room originally used by Botsford family had to fit in with such antiques as the buffet, which came from General Lee's home.

Window Units Cool Old Botsford Inn Built In 1836 Without Destroying Beauty and Atmosphere

FARMINGTON, Mich. — Even though it's used too freely, the word "unusual" is the best single adjective to describe the new air conditioning installation in the famed Botsford Inn here.

The inn itself is unusual, but so likewise is the method of air conditioning, the way the job was sold, what was done to the equipment, and the speed with which it was installed.

Botsford Inn, as those interested in Americana know, was built in 1836 on the old Post Road 16 miles from Detroit on the way to Lansing, now the state capital. Known as the 16-Mile House, it was the first outbound overnight stop for stage-coach travelers, and drivers.

Passage of time exacted its toll until 1924 when Henry Ford purchased the inn and began the expensive job of restoring the structure in the spirit of its earliest days. The story is that Ford had first met the girl he later married at a Botsford Inn dance. Thus, sentiment was combined with his hobby of preserving or recreating Early American structures when Ford took over the inn.

No expense was spared. For example, some \$600,000 was spent merely to landscape the grounds, the story goes.

Under Ford's ownership, the inn served meals to the public, but no effort was made to attract customers or put the operation on a profitable basis.

Things are being changed now, for the Anhut Hotels Co. has just purchased the inn from the Ford estate. Headed by John N. Anhut and his son, John W., the company operates the Imperial and Clifford hotels in Detroit.

And one of the first things on the Anhuts' agenda when they took over Botsford Inn was the installation of

air conditioning. Various layouts for air conditioning were being considered when they observed an advertisement in a Detroit newspaper featuring reconditioned window units.

"Why not," they thought, "put in some of these units now while the larger system is being worked out and then move the window units to the hotels later."

So they phoned first and then later visited Refrigeration Service, Inc., the Frigidaire dealership which ran the advertisement.

In the course of conversation with A. C. Ellerbusch and R. F. Callaway, principals of the dealership, the Anhuts learned that these two had sold and installed the first mechanical refrigeration equipment in Botsford Inn 'way back in 1925 (shortly after Ford bought the place) while with the Frigidaire organization.

And further discussion with sales engineer S. J. Janczarek of the dealership led to the conclusion that window units were the answer to the whole air conditioning problem, not merely a temporary substitute.

One of the chief points in this reasoning was that the Anhuts wanted to preserve as completely as possible the quaint and restful historical atmosphere and appearance of the inn. There was no chance to conceal ductwork, and even the most careful furring job would likely be detrimental.

Exceptionally low ceilings—only 7 ft. 4 in.—combined with the necessity for long throws likewise eliminated larger package units aside from the appearance problem.

So Refrigeration Service wound up installing five 1-ton window units to cool the three dining areas and will probably install two more shortly. A special paint job on the housing of these units permits them to blend un-

obtrusively into the setting.

In two instances, a two-tone paint job was required. For example, the unit which serves the original private dining room as used by the Botsford family is brown on the inside section to match the woodwork but is white on the exterior side to blend in with the traditional white paint on the clapboard siding. A similar two-tone job was also done in the Refrigeration Service paint spray booth on the unit installed in the original kitchen.

The three units in the main dining room were painted white on both exterior and interior sections.



COMBINATION of white paint and shrubbery makes four window units unobtrusive on the outside of Botsford Inn, which was built in 1836 and then restored by Henry Ford 25 years ago.

How important this is becomes apparent with the knowledge, for example, that the paneled white wood walls in the private dining room have been corn cob smoked, much as hams were smoked in those early days. The buffet in the room came from General Lee's home.

Besides the previously mentioned advantages offered by window units in this application, another point in their favor is the variable capacity, the Anhuts learned.

This particular Frigidaire model has two ½-ton systems, so each unit can be operated at full or half capacity as needed.

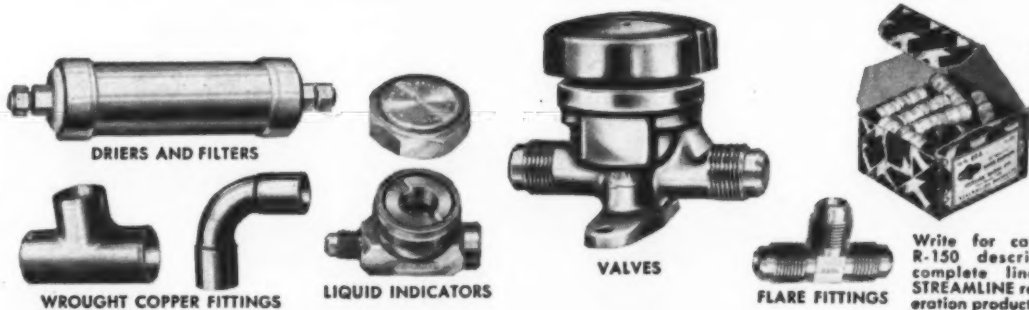
Where several such units are used, such as the main dining room with three, the capacity can actually be varied in ½-ton steps all the way from 3 tons down to ½ ton.

Since the load is primarily a latent one, it varies considerably with the number of persons dining. As the crowd falls off or perhaps concentrates in one corner, one or more of the units can be manually turned off or run at half capacity, thus saving on operating expense while maintaining full efficiency, the Anhuts were told.



IT PAYS to climb on the MUELLER BRASS CO. band wagon for . . .

- A full and complete quality line of protectively packaged refrigeration driers, valves, fittings and accessories—stocked and sold by your refrigeration wholesaler.
- Complete manufacturing facilities — from raw material to delivered product — under the strict control of Mueller Brass Co. craftsmen, technicians and engineers.
- A large, well-trained force of sales and field engineers to coordinate the laboratory and manufacturing facilities of the Mueller Brass Co. with your needs.



STREAMLINE refrigeration products are individual and multiple packaged for complete protection.

Write for catalog R-150 describing complete line of STREAMLINE refrigeration products.



MUELLER BRASS CO., PORT HURON 10, MICHIGAN



"JOB TAILORED" means money saved

• Your cold plate dollar goes further when you specify DEAN because you eliminate waste! You get a plate in the exact size you need . . . not one that is almost right, but a plate that accurately meets your specifications. You name the size—you name the shape . . . we make it!

You can have plates in zinc metalized steel, stainless steel and in other metals. You can get cylinders, U's, angles, tanks, etc., and also plates for baudelet-type coolers.

Using DEAN "job tailored" cold plates means dollars in your pocket on every job. Try them!

SEND FOR TECHNICAL DATA BOOK

Get the details on DEAN Cold Plates for ice cream cabinets, locker plants, soda fountains, farm milk coolers, farm freeze cabinets, low temperature test rooms, frosted food refrigerators, window displays, food counters, refrigerated transportation and subzero applications for industrial chilling.



ANY SIZE
ANY SHAPE
MOST METALS

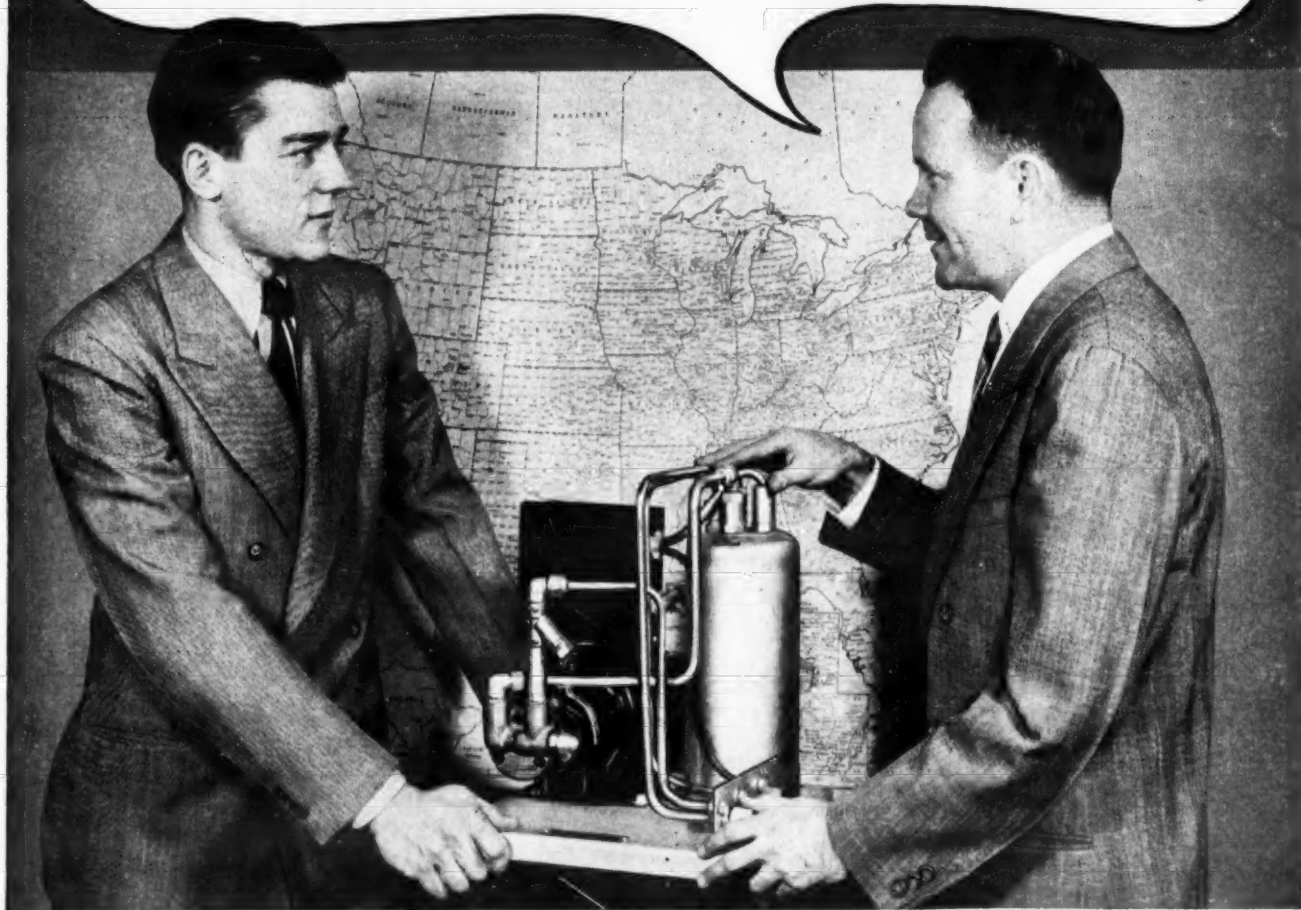
DEAN PRODUCTS, INCORPORATED
1042 DEAN ST., BROOKLYN 16, N. Y.
STERLING 9-5400

They'll Do It Every Time By Jimmy Hatlo



Do You Have 'Both Feet On The Ground'?

Here's why this compact Carbonator is EASY to sell... EASY to install...



New packaged TEMPRITE saves real money for owners of Taverns, Soda Fountains, Roadside Stands, etc.

You can get steamed up over the new Temprite Carbonator with little effort . . . and you can sell it like hot cakes! It's neat, compact and reliable. It gets the last full measure of instantaneous carbonation from every tank of CO₂ gas—pays for itself in no time at all and saves real money for its owner! There's no waste of CO₂ gas. No venting. No purging.

There are no flat, unpalatable drinks. Every glass sparkles with zip and zing. Carbonation is automatic and controlled.

But just listen to this. The Temprite user gets up to 6450 glasses of highly carbonated water from a 20 lb. tank of CO₂ gas. Can you top this?

The stainless steel carbonator itself is highly simplified; contains no moving parts, and packaged as it is with pump, motor and relay assembly, only three simple connections are necessary for a fast, easy installation. Fits in practically any location or under any fountain. Complete assembly weighs only 59 pounds.

Use the handy coupon below for full details.

TEMPRITE PRODUCTS CORP.,
P. O. Box 72-A
Birmingham, Michigan

Please send me details on the Temprite Carbonator line.

Company name _____
Address _____
City _____ State _____
Signed _____

"Be right with Temprite"
Temprite
PRODUCTS CORPORATION
P.O. BOX 72-A, EAST MAPLE ROAD
BIRMINGHAM, MICHIGAN

AN INTERNATIONAL INSTITUTION • SUBSCRIBERS ALL OVER THE WORLD

Trade Mark
registered
U. S. Patent
Office;
Est. 1926



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REFRIGERATION *News*

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VOLUME 64, No. 7, SERIAL No. 1,178, OCTOBER 15, 1951

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

Customers Don't 'Stay Put'

Every once in a while a dealer or contractor should take a good look around him and study his market a bit. Markets have a habit of changing constantly. The dealer who doesn't keep up with these changes will find his business fading away.

If you haven't been doing much thinking about your market lately, you might start out by asking yourself these questions:

How many people are there in my market area?

How much do these people spend—in general, and for the products that I handle?

How much might they spend for items I sell if I worked harder?

Where do my customers live?

How much am I losing to competition?

If you aren't too sure about the answers, your public library, chamber of commerce, and your own sales files are good sources of such information. Your two eyes and ears are another excellent source of facts about your community.

Markets are people. People move about constantly. This is especially so today when military needs, changing job opportunities, and a superabundance of automobiles spur more movement than ever before.

Even though you have seen the same faces in the neighborhood for years, don't let this fool you. Your market is still undergoing changes that affect you right in your pocketbook.

Take a new residential area as an example and follow it through the years. First it will build up on a foundation of young married couples. In a few years these couples will have expanded into families of two, three, or four children. What an effect this has on the family budget, the types of goods needed, and the wage earner's ideas of where his money should go!

Years go by and the houses and people grow more mature. The children move through public school, high school, and college. And then they move on to homes of their own.

The neighborhood is older and quieter now and the people have a new set of values against which to measure their pocket money.

As the original settlers die off or move out, a new class of people moves in. These are usually of a different economic level. The old houses are called up to do new duty and are ripe for repair and replacement.

As the center of activity swings elsewhere, the neighborhood may decline. This may go on for some time before it gets a new lease on life by changing character again. This may mean new businesses or new types of housing such as apartments or projects. Again a different type of person is attracted to the community. A new type of market is there for the businessman to serve.

That is just considering normal growth. There are other factors, too. To cite a few, the routes of public transportation lines, which do change from time to time, make it easy for people to shop in certain areas. The growth and decline of the retail businesses in the area and the variety and type of goods offered will affect shopping habits.

Acquisition in great numbers of such conveniences as automobiles, air conditioning, and television sets has a decided effect on the markets for other types of goods and whets the desires of the people for those goods.

It is the wise dealer who stays in tune with his community, or neighborhood, knows what the residents want, and supplies it to them.

TELLING and SELLING

A GUIDE TO SMART ADVERTISING AND
MERCHANDISING PRACTICES

This series of articles comprising ideas and principles for the small retail or manufacturing business is written by James D. Woolf, who was for more than 20 years a vice president and director of J. Walter Thompson Co., one of the largest advertising agencies. Out of his experience embracing all types of advertising and merchandising he brings his counsel to the small businessman who must plan his own advertising and promotional efforts.

By James D. Woolf

Rich Rewards In the Field Of Small Advertising

We are surely living in an era of BIG—big business, big production, big national spending, big taxes, big armies, big wars, big bombs, big talk.

And—as never before in our history—BIG ADVERTISING.

Advertising men and media, it seems to me, are today so dazzled and bemused by Bigness that they are blind to—and possibly contemptuous of—the rich opportunity for glory and profit in the field of little business.

And it is possible that many potential advertisers, little fellows now, are so awed by Bigness in advertising that they plod along without it.



"... fortunes are being made by a host of small advertisers."

The fact is, fortunes are being made today by a host of small advertisers. Moreover, little advertisements made men rich nearly a century ago. Many of today's big advertisers who got their start years ago were not the prodigal spenders they are now.

A prize book of mine, "The Art

and Science of Advertising," written by George French in 1909, extolls the virtues of advertisements then published by Victor Talking Machine Co., N. K. Fairbanks Co., Mellin's Food Co., Franco-American Food Co., Van Camp Packing Co., National Biscuit Co., etc. Compared to the huge block-busters we see today—full-color "bleed" pages, double-page "trucks," etc.—these black-and-white advertisements of 1909, some of them less than pages, were puny indeed.

HOW BIG IS YOUR OBJECTIVE?

How big do you want to be? If you have astronomical ambitions, if your goal is outstanding leadership in your field, you'll probably be a long time getting there with a campaign of modest little advertisements. But if what you want is a thriving, healthy, profitable business—one that won't be too hard on your blood pressure—don't let yourself be intimidated by the terrific dominance of the advertising giants.

Let's look at the record—not the record of 1909 but the record of now. Let me name for you the products of a number of going businesses—and I presume profitable ones—that do not now and never have used dominant space or radio time as regular procedure: Horlick's Malted Milk; Angostura Bitters; Jones Dairy Farm Sausages; Schilling Vanilla and Spices; Clabber Girl Baking Powder; Kool-Aid Soft Drink Flavors; Gorton's Sea Foods; Crosley Motor Cars; Tabasco Pepper Sauce; Salada Tea.

There are many others; I name only the several that occur to me as I write. Occasionally there have been splashes into large space or time, but over the years these advertisers have built up consumer acceptance and demand with moderate expenditures for advertising.

What small advertisements—often only three or four inches, single column—have done for literally hundreds of businesses in the proprietary field is known to everybody. You will recognize all these names: Mother-sill's Seasick Remedy, Bell-ans, Carter's Little Liver Pills, Nature's Remedy, Allen's Foot Ease, Murine, Tonsilene, Dr. Scholl's Zino-pads, promoted for years with very small space, is said to be the top-seller in its field. St. Joseph Aspirin's newspaper advertisements—usually an inch or two in depth—claim leadership in the product's price class.

UNOBTRUSIVE—BUT EFFECTIVE

Nobody in "big time" pays much attention to these small advertisers. They are seldom awarded "Oscars" at advertising shows. Few textbooks on advertising devote much scholarly consideration to them. Quietly and unobtrusively, asking for no applause, the small advertiser tends to his own knitting, wastes no time making speeches at ad conventions.

My friend, Julian Lewis Watkins, has written an interesting and valuable book, "The 100 Greatest Advertisements." I recommend it to every serious student of advertising.

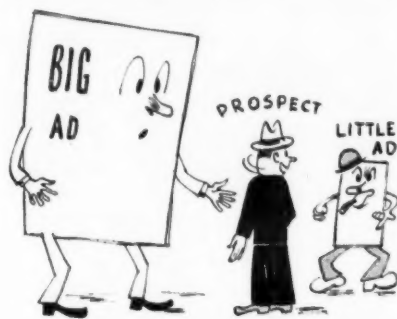
But, unhappily, the "100 greatest," with perhaps a dozen exceptions, are full-page advertisements, some of them originally in color. None of the exceptions is the type of advertisement being considered in this article. It isn't size that makes an adver-

tisement great. It isn't lyrical writing. Mr. Watkins himself intimates that anyone who attempts to name "The 100 Greatest Advertisements" is not settling the matter, but is merely starting something. I wish Julian would undertake a companion book with some such title as "The 100 Greatest Small Advertisements," the selections to be based on the known selling effectiveness of the copy and not on "fine writing" and dramatic art treatment.

SMALL ADS THE REAL TEST

I should like to make the observation, based on a very considerable experience, that the small advertisement against the large advertisement is a more severe test of the copy man's powers. Even a mediocre idea has a certain impact when it is dressed up with flaming color and costly art in a double-page spread.

Little skill indeed is needed to plot and write a color spread for, say, a candy bar, said spread consisting solely of a giant reproduction of the package and some such copy "punch line" as "Every Bite the Hite of Delite."



"... hardest working advertisements ... today ... are the small ones."

Boil that bit of "salesense" down into a two-incher—and what have you got?

The hardest-working advertisements in magazines and newspapers today, dollar for dollar, are the small ones ranging from 14 to around 200 lines. At least that has been my own experience. Clever generalizations, as every mail order advertiser has learned, do not pay.

The copy writer must exercise his noodle to find a real hook—a specific solution of a specific reader problem, a quick, fast answer to a bona fide consumer want or need.

His headline and the opening sentence in his copy must get at once to the heart of the matter. If his product, for example, is a corn remedy, he has no space for preludes. He goes right to it hard with something like this:

"Corns? New Magic Stops Pain In One Minute."

On the other hand, if he had a full page in color to work with, he'd like as not go in for a dramatic portrayal of a lovely but unhappy, footsore gal sitting out her dances alone in the corner. The writer of the small advertisement must do his selling almost entirely with words; he has no scenery.

It has always appeared to me that retailers and other local advertisers could make more effective use of small advertisements. Give me any time plenty of frequency—say, five or ten inches every day—than an occasional big splash. The power of frequency—the potency of keeping everlastingly at it—is a lesson many faint-hearted advertisers never seem to learn.

There is a real thrill, I find, in crowding a handful of words in 28 lines of space and making them perform.

AIRO stands for

- Fast, dependable, world-wide service.
- Refrigeration and Air Conditioning parts and supplies.

Write for current Catalog

AIRO SUPPLY CO.
2732 N. Ashland Ave., Chicago 14, Ill.

REMCO
"loss eliminators"

Pull-up Profits for You!

CROSS-FLO
Drier Filters Eliminate all losses from breakdowns—highest efficiency even at liquid temperatures up to 150°.

E-Z-SEE
Liquid Indicators Eliminate losses from leaking liquid indicators. E-Z to see through, leakproof, perfectly safe.

FROST-TITE
Flare Nuts Eliminate losses from loosened and cracked flare nuts. Ideal for use anywhere in system.

At Leading Wholesalers

REMCO INCORPORATED
PITTSBURGH, PA.

"I just can't risk food spoilage!"



No merchant can risk food spoilage... and no manufacturer of frozen food display cabinets can risk using unreliable condensing units in the equipment he builds. That's why the name Tecumseh has become synonymous with dependability, and that is why more than 2/3 of all manufacturers of frozen food cabinets specify Tecumseh as standard equipment on all the models they make.

Of course there's a reason! Manufacturers know that Tecumseh's internal spring mounting and forced feed lubrication gives them a smooth, quiet and vibrationless unit that they can rely upon for low-cost, trouble-free operation. Yes, customer satisfaction can be assured when a Tecumseh Hermetic is specified as standard equipment in their frozen food cabinets.

No wonder Tecumseh's present production is over 200,000 units per month, and today there are more than 8,000,000 Tecumsehs in the hands of satisfied users.

Let us send you a catalog today describing these Tecumseh units.



TECUMSEH PRODUCTS

TECUMSEH, MICH.

Company
TECUMSEH PRODUCTS COMPANY, TECUMSEH, MICH.
EXPORT DEPT.: 2111 WOODWARD AVE., DETROIT, MICH.

World's largest independent producer of compressors and condensing units for the refrigeration industry.

FOR DEPENDABLE BRAZING



CERTIFIED ANALYSIS
LOW TEMPERATURE
BRAZING ALLOYS
AND BRAZING FLUXES

**TO ALL SPECIFICATIONS
IN ALL FORMS & SIZES**

WRITE FOR
CATALOG AND BULLETINS

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REGULAR MODELS with fixed wheels.
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Inventories Becoming Depleted

Dairy Equipment Mfrs. Can't Get Enough Material; Seek Stainless Steel Substitute

WASHINGTON, D. C. — Dairy equipment manufacturers' working inventories will be depleted by the first quarter of 1952 because of their inability to procure sufficient quantities of controlled materials, the industry's advisory committee reported at a recent meeting with the National Production Authority.

Of total current production, the percentage of new equipment being turned out is very small, members reported.

They have revealed that close to 35% of the present production is for repairs as well as minor capital additions.

Some industry members said they have started working on defense contracts, but that the peak of such production will not be reached before February.

They also estimated that only 10% of the total dollar volume of the industry production in the third quarter was for defense contracts.

Members reported that their biggest backlog of orders for spare

parts is for rubber gaskets because of difficulty in obtaining those of suitable quality. One member said he had trouble in obtaining deliveries of component parts. An NPA official advised him to call upon NPA for assistance if such shortages interfered with his production to any great extent.

The consensus was that the industry has to run between 75 and 85% of a normal three-year production average to break even on operations. The years 1948, 1949, and 1950 were given as a normal three-year period.

Members reported that tests by mills on substitutes for nickel-bearing stainless steel have proven unsuccessful as well as costly. Experiments with the use of chrome stainless steel convinced the industry it was not practical because it parted at welded points unless annealed and because of some other weaknesses. The metal also is subject to corrosive attacks, members said.

However, it was pointed out that there is an insufficient furnace capacity to anneal complete milk vats or tanks, and even if such furnace capacity was available, the cost of refinishing would be prohibitive.

An NPA official urged the industry to continue studies with mills in an effort to find a possible substitute for nickel-bearing stainless steel.



AFTER TAGGING and recording receipt of apparatus, a steam bath is the first step in the actual rehabilitation of the equipment. Here, a worker is in the process of removing oil and grease from end-bells, armatures, and stators. This steam bath removes the major portion of grime and grease.



SEVERAL MEANS are available for degreasing and degreasing equipment. Here, a trichlorethylene vapor degreaser is about to receive some end-bells.



IN THIS degreasing operation, a spray gun is used to spray an oil and grease solvent. Metal components are placed on inclined shelf, so that refuse liquid flows into reservoir.

Flood Damage Repair

Westinghouse Field Notes Describe Methods and Equipment Used To Restore Refrigeration to Operating Condition After Disaster

KANSAS CITY, Mo.—Details of how motors, appliances, and other electrical equipment such as generators, transformers and switchgear were rehabilitated following the disastrous flood here have been revealed by Westinghouse Electric Corp. in a series of "field notes" on its activities.

It is expected that the number of appliances that will have to be re-

habilitated will run into the thousands, the company indicates. Up to Aug. 8, 500 refrigerators, ranges, water coolers, and milk coolers had been received by the Howard Service and Repair Co., agent of Continental Electric Co., local distributor of Westinghouse appliances.

Most refrigerators, Westinghouse estimates, will be repaired for about 1/4 of their cost.

Essentially, it was a matter of cleaning and drying the equipment with the additional problem of sterilizing appliances. And in this, Westinghouse put in operation the flood plan for recovery and rehabilitation of equipment which it developed as a result of the 1936 Pittsburgh flood. With the cooperation of the U. S. Navy 80,000 sq. ft. of the company's jet-engine plant here was allotted to emergency repair work and 117 specialists brought in to help.

Top priority was given to a water-pumping station and two utilities along with companies having anything to do with the food and water supply, health, and transportation. Appliances are the last in line.

In all cases, the Westinghouse customers were told that all of their

equipment couldn't be tagged as rush jobs. Motors that were essential, such as compressor motors, pump motors, and certain machine tool motors, were given "A" priority, which meant 24 to 48 hours from time of receipt to completed repair.

In one instance, however, a woman brought her refrigerator compressor motor to the temporary manufacturing and repair plant during its early stages of organization, came back 10 days later and received a completely rehabilitated motor. Westinghouse considers this a remarkable feat, considering the thousands of pieces of equipment that were undergoing repair.

Generally, most equipment could be rehabilitated, Westinghouse found. In some cases, the extreme age of certain transformers and motors made it cheaper to replace them with new ones. Approximately 95% of all the motors that were flooded are being cleaned and returned to service without rewinding.

Here's the procedure that Westinghouse set up for motors and generators:

1. Clean with high pressure water.

(Concluded on next page)

MORE INFORMATION?

Use Handy Coupon
on "What's New" Page
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20 YEARS' EXPERIENCE
SPEAKS FOR ITSELF!

Kelvinator Condensing Units and Parts rated "best"
by these New York refrigeration men!

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Sales Engineer,
South Shore Refrigeration Service, Inc.,
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President,
South Shore Refrigeration Service, Inc.,
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We have been selling and servicing commercial and industrial refrigeration together with air conditioning for more than twenty years.

It has been our policy to sell the best equipment obtainable. This, carefully engineered and installed, has built customer confidence and good will. We give credit to the fact that we use Kelvinator condensing units and parts almost exclusively, resulting in a minimum of service calls.

Yours very truly,

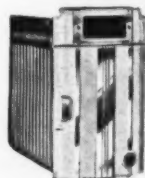
SOUTH SHORE REFRIGERATION SERVICE INC.,

JAM/h

J. A. Montgomery
Sales Engineer

COMMERCIAL REFRIGERATION - SALES - AIR CONDITIONING

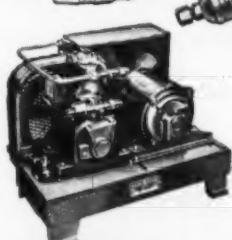
Keep this letter in mind—when selecting refrigeration equipment for replacement jobs or new installations! See the complete range of Kelvinator unit sizes . . . and complete line of refrigeration parts and supplies, competitively priced . . . at your nearest Kelvinator Parts Depot. Write, phone or stop in for helpful information on installation or service problems. Kelvinator, Division of Nash-Kelvinator Corporation, Detroit 32, Michigan.

You Build Better Business
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Kelvinator Stainless Steel Evaporators



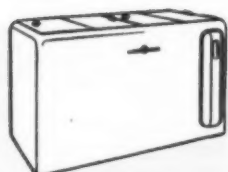
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Kelvinator Compressors
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Condensing Units
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Condensing Units
(1/4 to 1/2 H.P.)

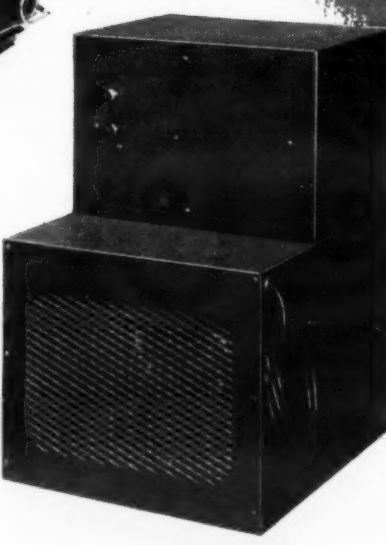
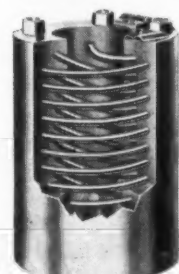
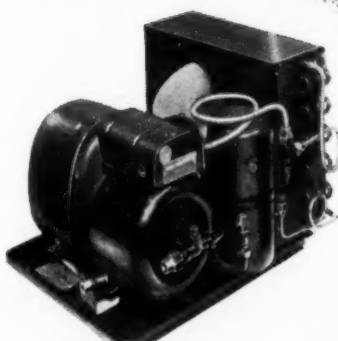
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A new line of self-contained water coolers . . . famed Heat-X liquid coolers with water and refrigerant tubes cast into an aluminum block insure sufficient holdover capacity at normal draw periods to prevent short cycling while eliminating storage tanks, and sufficient strength to prevent freeze-up damage. Hermetic condensing units assure years of trouble-free service.

Write for specification sheet today.

THE HEAT-X-CHANGER CO., INC.
BREWSTER, NEW YORK



FIXED APPLIANCES stand last in the line of the rehabilitation program. However, as of Aug. 8, 500 refrigerators, ranges, water coolers, and milk coolers had been received by the Howard Service and Repair Co. of Kansas City, Mo., agents of the Continental Electric Co., local Westinghouse distributor. It is anticipated that the final figure will be in the thousands. In general, the appliances receive the same type of rehabilitation treatment as do motors, generators, and transformers. The major difference, it is explained, is that appliances must be sterilized.



HERE, a workman examines the damage to a refrigerator before disassembly. Most refrigerators, it is estimated, will be repaired for about one seventh of their cost.

Equipment Too Large To Be Moved to Shop For Restoration Gets on-the-Spot Treatment

(Concluded from preceding page)

2. Disassemble.
3. Clean parts with steam or solvent. (End brackets and bearings were cleaned in degreaser.)
4. Wash open type bearings with solvent. After washing, cover with oil. (If not covered with oil, corrosion takes place almost immediately.)
5. Bake stators, wound rotors, d.c. fields, and d.c. armatures at 250° F. for 24 hours. Check with a Megger meter, which must read one megohm or better.
6. Spray motor coils with air-drying insulating varnish.
7. Reassemble.
8. Give Megger, ground, and running tests.
9. Paint and ship.

The procedure used on appliances was this:

1. Wash off surface muck and dirt with clean water.
2. Steam inside and outside to remove grease and oil films.
3. Remove liners (refrigerators and ranges).
4. Steam inner walls.
5. Sterilize in chlorine solution.
6. Air dry.
7. Install new insulation.
8. Replace liners.
9. Replace controls.

"Because compressors and motors are sealed-in units, they receive no special precautions during this rehabilitation process," Westinghouse explains.

In repairing electrical distribution

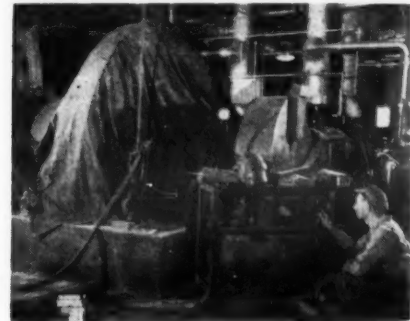
circuits, wires were pulled from conduits which were then blown out with compressed air and CO₂, washed out with water, and then blown out with air to dry.

Generally, low voltage circuits were found in good condition, but open cables usually had to be replaced. In fluorescent fixtures ballasts were replaced but the unbroken tubes were merely dipped in a cold water detergent solution and air dried.

Most of the rehabilitation work was performed at the temporary repair shop but in some instances it was found less expensive to do it on the site. An example was the power house of a meat-packing plant where several large motors had been inundated.

Here a temporary oven was created around a 700-hp. synchronous motor to speed its drying. Two d.c. welders were used to supply current to the exciter winding and stator winding. In addition, a steam heater and fan maintained external heating and removed moisture-laden air.

The whole motor was covered with a canvas tarpaulin to act as an insulator to keep the heat around the motor. Thermometers having their bulbs against the insulation were used to determine temperature at all times, every effort being made to maintain a drying temperature of 100° C. Any variation in temperature was counteracted by supplying more or less current from the d.c. welders. At all times the total current was considerably less than full-load current for the motor.



WHERE equipment was too large to move to the repair depot, cleaning and drying operations took place at the site. Here a temporary oven was built around a 700-hp. synchronous motor to speed its drying.

RACCA Pledges Support for Drive To Round Up Scrap Iron and Steel

WASHINGTON, D. C.—Members of the Refrigeration & Air Conditioning Contractors Association will support the current iron and steel scrap drive, Nathan Edelstein, executive vice president of the group, assured a recent emergency scrap conference sponsored by the Department of Commerce.

Edelstein said RACCA members will see to it that all available scrap coming to their attention is rounded up for shipment through regular channels to steel mills.

He suggested that whenever a refrigeration contractor visits a customer in a commercial establishment, he might point out to the customer that dormant scrap in the establishment will not only bring in money but assist in the scrap drive.

Edelstein attended the conference in line with RACCA's policy of keeping members informed of defense activities through personal contacts.

Speakers at the conference emphasized that unless sufficient scrap is turned in through the usual channels, there will be a shortage of parts and equipment for civilian use, the RACCA official reported.

"It was realized that in this national emergency the first priority would go to defense and armed forces equipment," he said. "If there was a shortage of any materials, civilian usage would suffer. It was therefore very important that the refrigeration and air conditioning industry take

heed and start its own scrap drive." Edelstein's report continued:

"The question was asked 'Why place so much emphasis on scrap? Why don't we use pig iron?' It would be possible to make steel by using pig iron but output per hour would be very slow.

"Steel scrap has already been refined—at least once. Its use of the furnace cuts down the time needed to make new steel because scrap does not have to be refined to the extent that pig iron does. Use of scrap, therefore, permits maximum output from steel making facilities, making production more economical.

"Scrap also serves another important function, particularly at this time when the supply of high grade ore in the U. S. is diminishing.

"It normally takes slightly more than four tons of coal, iron ore, limestone, and other materials to make one ton of pig iron. Hence, whenever a ton of scrap iron can be used in place of a ton of pig iron, more than four tons of natural resources are saved."

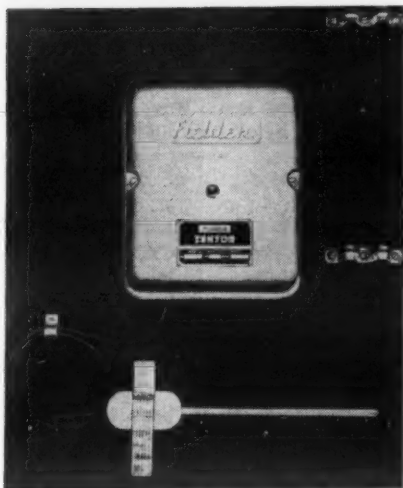
Principal speaker at the conference was Charles E. Wilson, defense mobilization director, who said he was shocked at the prospects for steel production this winter.

Wilson said he was told at a meeting with steel producers that there would be a shortage of a hundred thousand tons in the first quarter of 1952.

What's New

When requesting further information on new products, please use "Information Center" form.

Switch Provides Level Control of Liquids, Solids



KEY NO. A-1030

PHILADELPHIA—A new Tektor Level Switch has been introduced by Fielden Instrument Corp. located here.

This switch makes possible level control of both liquids and solids. Liquids may be of high or low viscosity and may have electrical conducting or insulating properties, it is pointed out.

No electrical contact is necessary with the material under control. The

equipment does not rely on floats, diaphragms, or any moving mechanical parts, it is claimed by the manufacturer.

Tests have been made successfully for control of practically every type of liquid, powder, and granular solids, flour, wheat, and coal, with sensing electrodes suitable to the specific problem.

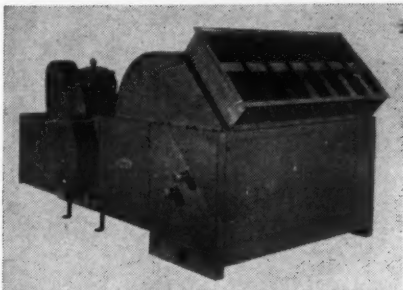
Model AJ-1 Tektor is housed in a dust-tight, splash-proof, die-cast aluminum box, 6½ in. x 7½ in. x 4 in. deep, with screw-on cover.

The electrode, connected to the instrument through a two-foot length of cable, consists of a simple probe, 4 in. to 6 in. long, ¼ in. to ⅜ in. in diameter, which is inserted into the container at the level at which control is required.

A level differential of ½ in. up to ⅜ in. may be obtained. The probe may be insulated or not, depending on the application. For some applications the sensing element may be flush with the inner surface of the container.

Model AJ-1 sells for \$85, plus \$5 for the simplest form of probe. Other models apply to special conditions, such as frothing, and models that give upper and lower levels are higher priced.

Central System Permits Independent Area Control



KEY NO. A-1031

SYRACUSE, N. Y.—A completely new line of central system "zoning" Weathermakers, designed especially to provide independent control of air conditioning in separate areas of a building through a single unit, was announced by Carrier Corp.

The units are in production and are available through Carrier dealers and direct sales offices. Five sizes are being produced with air conditioning capacities ranging from 12 to 58 tons.

The number of zones possible with the factory-built damper section varies from five for the smallest size to 14 for the largest. Intermediate sizes include 7 and 10 zone units.

Carrier officials said the units will be particularly useful in office or other multi-room buildings, manufacturing plants, and other spaces where cooling or heating loads vary in different rooms or areas due to the changing position of the sun.

The new Weathermakers are of the horizontal blowthrough type. Damper control for separate zones is provided through a double outlet arrangement, with one outlet supplying cooled and dehumidified air and the other supplying warm air. These twin outlets are divided into separate dampering compartments.

An independently operated double damper in each twin compartment regulates the proportion of warm and cool air for the zone, shutting down on the supply of one as the other is increased.

Although normally mounted on the unit, the entire damper section can be set up in a location remote from the Weathermaker by installing warm and cool air ducts to the damper. Or the damper section may be eliminated and double ducts—each pair equipped with their own damper—may be run to each conditioned space, thus greatly increasing the number of possible zones.

The units include a recently improved centrifugal fan section providing "exceptionally quiet, high air capacity operation at low rotating speeds." A diffuser section through which air passes to the cooling and heating coils has been designed for high efficiency airflow, reportedly achieving savings in horsepower requirements of as much as 10%.

All units are sectionally constructed for easy handling and installation.



A-P Controls Redesigns Refrigeration Unit Cartons

KEY NO. A-1035

MILWAUKEE — Package design plays an important part in modern merchandising, and many alert manufacturers and wholesalers regard the package as a valuable piece of store display advertising.

Reflecting this modern marketing conception, A-P Controls Corp. here recently redesigned its packages.

Designed by Brooks Stevens, well-known industrial designer, the new packages are distinctive and attractive in appearance. They are designed to assure higher visibility on the shelf, and to provide a container in keeping with the quality and reputation of A-P products.

for more

Ice Maker

SALES

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"Taste-Master"

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in the water line

Cuts Service

No Tastes

Clear Ice

Fits All Makes

Small Cost

Crystal ice... without sludge-forming rust, sediment, mineral residue... chlorine taste... "milkiness." Ends major source of service calls. Write for new literature.

Filtrine

Water Filters and Filters for 40 Years

FILTRINE MANUFACTURING CO.

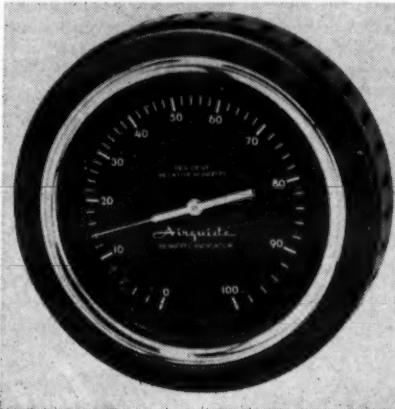
BROOKLYN 5, N. Y.

Self-Adhesive Masking Tapes Come Pre-Cut

KEY NO. A-1034

CHIPPEWA FALLS, Wis.—Use of self-adhesive, pre-cut masks and gaskets called "Quik-Masks" is said to enable "fast, low-cost" masking of products during various stages of production.

Made by W. H. Brady Co. here, the masks are applied without moistening to areas requiring protection. They can be used for masking name plates, dials, gauges, machined parts, engraved and embossed letters, etc. Quik-Masks are made from "Scotch" brand masking tapes. They come pre-cut to the size and shape required, and can be obtained either mounted on dispenser cards or with individual liners.



Hygrometer Gives Direct Humidity Readings

KEY NO. A-1032

CHICAGO—A hygrometer which permits direct readings of relative humidity has been introduced for industrial use by Fee and Stenwedel, Inc. here.

Called the Airguide, the instrument contains a "floating" type humidity sensitive element operating on the absorption principle. Relative humidity is indicated by a white indicating hand on a black dial. The scale is graduated into two per cent relative humidity divisions with accentuated dial markings every 10%.

The instrument will register exact humidities from 0 to 100%. It will operate in temperatures up to 175° F. and is said to be suitable for continuous use at high humidities.

Diameter of the humidity indicator is 4½ in. Depth is 1½ in. Shipping weight is 1 lb.

M-H Adds Modulating, Thermostatic Gas Valve

KEY NO. A-1033

MINNEAPOLIS—A new modulating thermostatic gas valve for space heaters has been announced by the Appliance Div. of Minneapolis-Honeywell Regulator Co.

The valve combines a bellows thermostat, valve, minimum flame adjustment, and safety pilot in one compact unit. The built-in thermostat varies the positioning of the control valve according to room temperature. This provides a modulating burner flame which ranges from full volume to a pre-set minimum flame, according to the company.

The safety pilot is said to give 100% shut-off in case of pilot failure. The new control, known as the V5163 Honeywell Thermostatic gas valve, is described as suitable for use with natural, mixed, and L. P. gases. In addition to residential use, the valve can be used in many commercial applications, including incubator houses, brooder houses, and tobacco curing heating units, the company said.

An optional model, the Honeywell V5140, is available without safety pilot.

For day in, day out
DEPENDABILITY
you can't beat a

GOVERNNAIR
COMPLETELY PACKAGED
AIR CONDITIONER

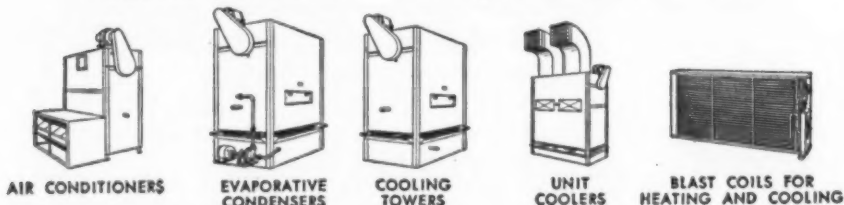


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Name your job... any air conditioning job requiring from 3 to 50 tons... and you'll find that you can't beat a Governair system for day in, day out dependability.

Governair Packaged Air Conditioners are designed to operate at peak efficiency—with all parts precision-matched to work together. And they're built to give years and years of low-cost trouble-free service.

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Information Center

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What's New or Current Literature Available

Key No.	Key No.
Key No.	Key No.
Key No.	Key No.
Key No.	Key No.

Products Advertised
(list name, page, and issue date)

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What's New (Cont.)

Beverage Dispenser Offers 'Simplicity, Animation'

—KEY NO. A-1036—

CHICAGO—"Simplicity of design" is combined with "unusual animation" in a new beverage dispenser now being produced by Modern Refreshers, Inc. here, the company reported.

Beverages flow from the top of the solid, clear glass sphere downward over graduated cascades, it was explained. A top light illuminates the fountain.

The heavy-duty sphere of the "Buckingham" dispenser has a 12-gal. capacity and an 8-in. diameter filler hole on top. Non-carbonated beverages are dispensed through a "quick-draw" faucet.

The unit can lower the temperature of a beverage from 75° to 42° in 15 minutes or less, according to the company. A 1/4-hp. compressor using "Freon-12" powers the cooling system.

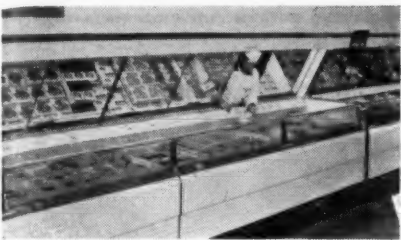
Base of the Buckingham is stainless steel, 18 in. high. The entire unit is 18 in. in diameter and 30 in. high.

Recently organized, Modern Re-



freshers is national distributor for all products engineered by D & R Engineering Co., specialists in animated drink dispensers, carbonated devices, and refrigerator specialties. Howard W. Pretzel heads Modern Refreshers and Rudolph Yuza heads D & R Engineering.

11-Ft. Frozen Food Case Has Forced Circulation



—KEY NO. A-1037—

ST. LOUIS—Announcement of a new 11-ft. frozen food case has been made by Hussmann Refrigeration, Inc.

The refrigerator uses a new Hussmann forced air circulating system to give proper cold distribution with automatic defrost.

Known as model L-11, the case is similar in design to the Hussmann model OS cases for self-service meats which also employ a forced air circulating system. Model L-11 cases can be readily joined together with OS type cases for continuous display and are available without superstructure or with 56-in. or 70-in. superstructure.

Heater, Fan, and Light Are In One Ceiling Unit

—KEY NO. A-1038—

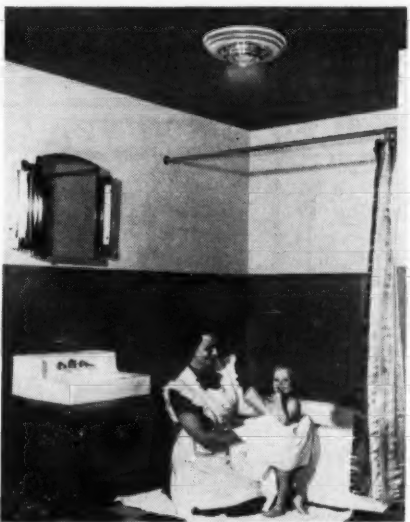
CINCINNATI—"Heat-A-Lite," a combination all-electric ceiling heater, overhead light, and air circulator, has been introduced nationally by NuTone, Inc. here.

Big advantage of the household fixture, according to the company, is that it is installed in the ceiling, out of reach of children's hands and where there is plenty of space.

Recommended for bathrooms, bed-

rooms, nurseries, recreation rooms, and other small areas in the home, the device is also claimed to give more uniform warmth than ordinary wall heaters.

In addition, "heat that ordinarily rises in a room, laying stagnant at ceiling level, is not wasted due to the fan, which draws air from ceiling



level and forces it down."

For summer comfort, some models are equipped to operate without the heating element to provide a circulating flow of cool air. The recessed overhead light reportedly gives soft, non-glare illumination.

Housing of the fixture fits between standard 16-in. center framing. Adjustable brackets permit fitting to 1/4-in. to 3/4-in. ceiling.

The device has a built-in outlet box with three "knockouts." The intake grille is screwed into place with three screws. The light lens snaps into place on a spring-loaded hinge. Heater and overhead light are installed in one operation.

Other features announced for "Heat-A-Lite" are compact heater assembly, three-point suspension in housing, and easy accessibility of parts for installation and servicing.

Current Literature Available

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

Bulletin Describes Water Conditioning Equipment

—KEY NO. M-1030—

MERIDEN, Conn.—A four-page bulletin describing Penfield water conditioning equipment for boiler feed, process, and other industrial needs, was published recently by the manufacturer, Penfield Mfg. Co., Inc. here.

In addition to product descriptions, the bulletin contains a typical water problem and Penfield's "planned purity" solution.

Book Covers Fusion Welding Of Nickel, Nickel Alloys

—KEY NO. M-1031—

NEW YORK CITY—A new, 44-page booklet on the fusion welding of nickel and the high nickel alloys has just been published by the International Nickel Co., Inc.

It contains 44 pages and includes more than 30 tables and almost 50 drawings and photographs.

A complete technical treatise on the subject, it covers various forms of electric arc welding as well as gas welding. There are over 20 chapters and sections covering, in addi-

tion to detailed welding instructions, such information of importance to production and welding engineers as the boiler code of the American Society of Mechanical Engineers, pickling, testing, and inspection safety methods and associated topics.

The booklet, designated as Technical Bulletin T-2, is available free.

2 Publications Designed To Aid Dealer Profits

—KEY NO. M-1032—

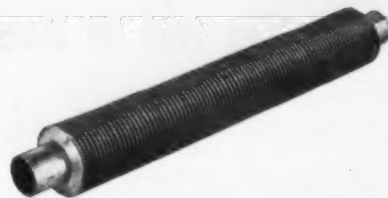
BRIDGEPORT, Conn.—Two publications to help dealers increase profits from the sale of both new and used refrigerators have been released by General Electric.

A booklet entitled "Plus Profits" discusses ways of making the dealer's classified newspaper advertising more effective.

"What About Trade-Ins?" contains information on the appraisal, reconditioning, and merchandising of trade-in refrigerators. It outlines a simple trade-in plan devised from a study of tested plans now being used successfully by G-E dealers.

"Plus Profits" may be obtained for 2 cents a copy; "What About Trade-Ins?" for 15 cents.

For efficient heat transfer "Ro-Fin" Tubes



There are nearly 100 sizes of Rome Extended Surface Helical Fin Tubing in production... with or without threaded end connections, or to be used with standard flare connections.

Write for information on your heat transfer problems:



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Catering To Resorters

Gulf Coast Service Firm Finds Jeep To Be Big Aid In Reaching Cottages Fast

BILOXI, Miss.—Use of a "service jeep" for traversing beaches and sandy roads in the Biloxi-Gulfport resort area and maintaining a sizeable stock of "loaner" refrigerators for use by vacationers has helped General Refrigeration Service, Inc. here handle peak summer service loads.

William Revell, head of the firm, says that service calls usually start pouring in about the middle of May when vacationers begin to fill up the cabins, lodges, and cottages that line the Gulf coast.

The old refrigerators used in these places have been lying idle all winter and often fail to function properly when started up. The vacationer, with only a week or so to spend at the beach, puts in a "hurry-up" call

for repairs.

The Revell finds it a great time-saver to use his jeep. This vehicle, with both front and rear wheel drive, is able to move rapidly across sandy stretches and get right up to the door of the customer's cottage.

When it is necessary to bring the defective box back to the shop for repair, Revell tactfully offers to loan the customer another box.

Revell says that he has supplied some motels with as many as a half-dozen "loan-outs" at one time.

His stock of "loaners" now numbers from 15 to 25 boxes. He picks them up at the end of the season from cabin owners who no longer want their boxes and are willing to sell and sometimes even give them away.

Campbell Is Wolverine Sales Mgr. In Midwest

DETROIT—Appointment of E. J. Campbell as midwestern district sales manager of Wolverine Tube division of Calumet & Hecla Consolidated Copper Co. was announced by G. D. Potter, general sales manager.

Campbell has been affiliated with the company since 1943 and has worked closely with both their inside and outside sales staffs. He was responsible for establishing the company's Grand Rapids (Michigan) sales office in 1945 and the widespread development of sales activities in western and southwestern Michigan. He was promoted to assistant midwestern district sales manager in 1948.

Campbell will continue to headquarter in the company's Chicago offices and will supervise sales activities throughout 12 midwestern states.



E. J. Campbell

Walter E. Voisin, Sr. Dies After Long Illness

BUFFALO—Walter E. Voisin, Sr., 52, a leading figure in the heating and ventilating trade in western New York for many years, died recently in Buffalo after an extended illness.

Servicing Hermetics In the Field

In resuming this series of articles, the author is emphasizing the importance of the serviceman's having a good working knowledge of electrical circuits if he's going to service hermetics in the field. This is the second instalment in this section which tells how to trace the various circuits involved on the average household refrigerator equipped with a hermetic.

For those readers who missed the articles published weekly from April 16 through Aug. 6, the News has assembled these in a handy pocket-size booklet. Copies are obtainable from the NEWS at \$1 each.

How To Trace Electrical Circuits on Hermetics -- 2

By Arne Perttola, Owner and Manager
Brighton Hermetic Service, Detroit

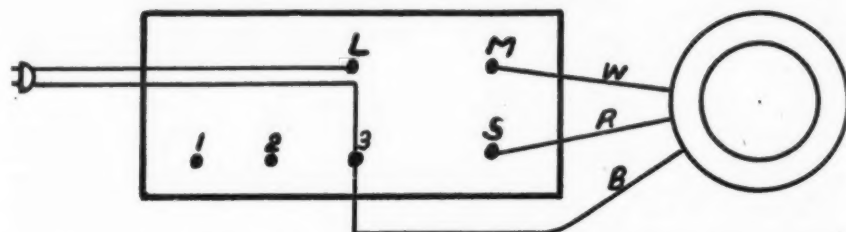


Fig. 16 shows connections through a Delco relay from the power cord on the left to the white, red, and black motor leads on the right. With this hookup, however, the unit would run continuously as long as cord was plugged in.

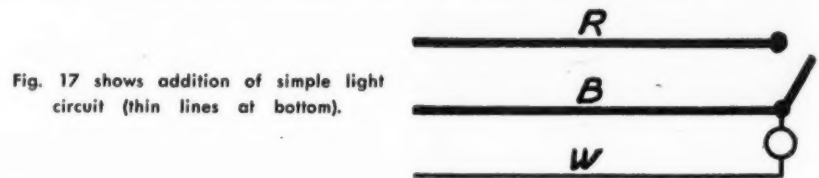


Fig. 17 shows addition of simple light circuit (thin lines at bottom).

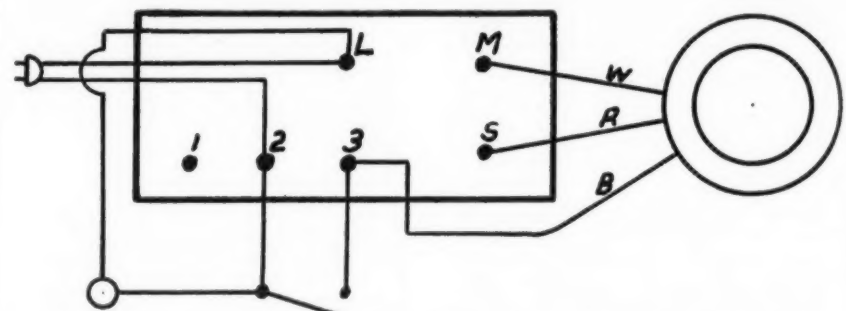


Fig. 18 shows the same relay as in Fig. 16, but note the addition of the light in the lower left-hand corner, and the unit control switch between terminals 2 and 3.

If the serviceman is to be able to trace electric circuits in a hermetic unit, he must first understand the simple circuit used to operate the unit through a relay. For the moment we shall ignore the other circuits of the system.

Suppose, for example, that we have checked the compressor circuit as previously described in this series and determined that the red lead is the starting winding, the white lead is the running winding, and the black lead is the common conductor.

Using a Delco relay, the red lead should go to terminal S (see Fig. 16), the white lead on terminal M, the black lead on terminal 3. The power cord connects to terminals 1 and L, as shown. If the power cord is plugged in, the unit will operate continuously.

Almost every serviceman has installed a control and a light in some system or another. All that is to be added is the simple control circuit. By adding a simple light circuit as indicated by the thin lines in Fig. 17, we have three wires with two circuits. As we all know the light must be across the line and the control in series. This is diagrammed in Fig. 18.

To check the three wire control-light circuit, turn the control to the "off" position and check for continuity with an ohmmeter or a test light.

Suppose you have continuity on

the black and white wires. This indicates the light circuit. Be sure that the door of the refrigerator is open so the light switch will be in the closed ("on") position. We might put it this way:

Black + White = Light Circuit

Now turn the control to the "on" position and close the refrigerator door. If we have continuity in the black and red wires, it indicates that these wires are the control circuit. Thus:

Black + Red = Control Circuit.

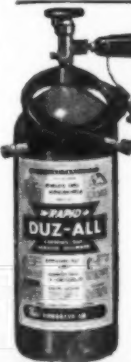
The black and red leads will be in series with the power supply and the unit while the black and white leads would be in parallel or across the power line. Now it's just a matter of shifting the leads.

(To Be Continued)

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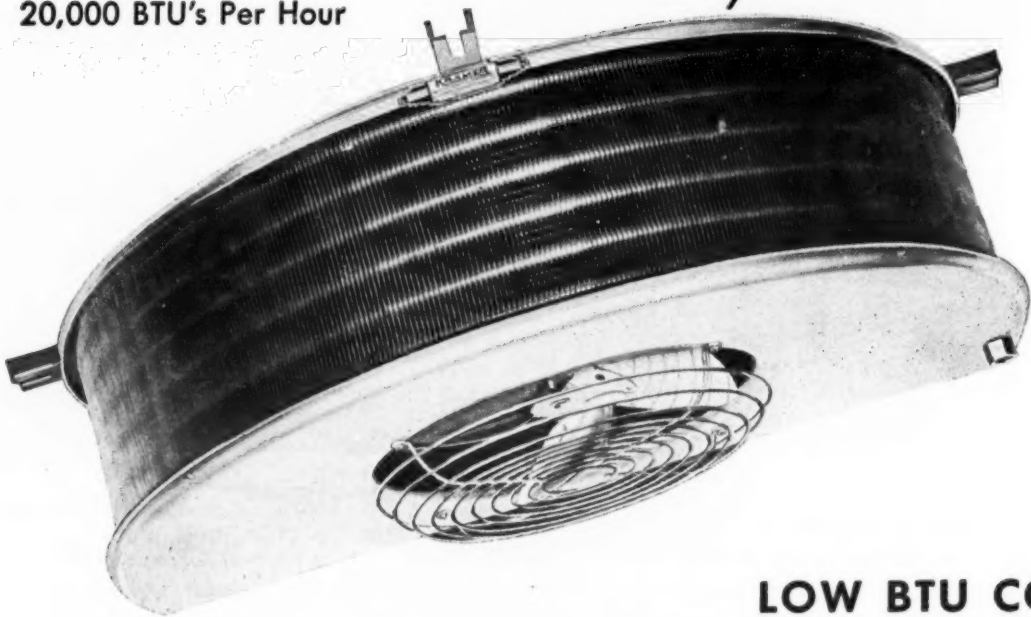
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SAVES SPACE

The unique designs take no storage space.
Provides adequate head room.

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WRITE FOR
BULLETIN C-192

KRAMER TRENTON CO. • Trenton 5, N.J.

Lacey To Head Appliance, Radio Distribution for Wesco In Eastern Area

NEW YORK CITY—E. M. Lacey, who for the past four years has been manager of the Newark branch of Westinghouse Electric Supply Co., has been named eastern district manager of the firm's consumer product division, it was announced recently by John F. Myers, president of the company.

His headquarters will remain at 228 Ferry St., Newark.

Lacey will supervise the distribution of home appliances, television, and radio sets in northern New Jersey and southeastern New York State through branches at Long Island City, Hempstead, and Newburgh, N. Y., and Newark and Trenton, N. J.

Lacey has been with Westinghouse since 1932, when he started as a refrigeration supervisor in the New York area.

He became manager of the Newark branch in 1947.

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FOR *Quality*
AND *Economy*

DRY KOOL BOTTLE COOLER

World famous for performance and design. 14 models to meet all requirements in stainless steel or brown Dulux finish.

KUBEMASTER ICE CUBE MAKER

Whenever food or refreshment is served, ice cubes as you need them. Choice of 3 beautiful models.

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Modern flush fronts with recessed handles in popular sizes. Ten models to choose from. Available in white Dulux, stainless steel fronts and glass doors.

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Engineered to serve beer to the "Brewmaster's" taste. Its smart appearance enhances any establishment. Choice of 8 models in stainless steel or brown Dulux finish.

UPRIGHT FREEZER
15 Cubic Feet

Scientific placement of cooling coils, two separate food compartments, dual doors to minimize cold loss, insure balanced freezing at minimum cost.

DESIGNED—ENGINEERED—MANUFACTURED BY
UNITED REFRIGERATOR COMPANY
Locust and Walnut Sts.
HUDSON, WISCONSIN

Refrigeration Units WANTED

Desire to purchase 1/8 to 1-HP Sealed or Open type; standard brands; Complete condensing units; Also motors, controls, valves, etc. Give full details.

HARWOODE EXPORT CO.
31 E. 4 Street, New York 3, N. Y.

Refrigeration Problems

and their Solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

Pressure Drop (1)

Pressure drop is a common thief. Common, in fact far too common, but frequently unrecognized; a thief, too, for it steals performance, capacity, and the customer's money, through excessive cost of operation.

In the ordinary compression system, there is only one place where pressure drop is desirable—even necessary. To produce pressure drop, properly controlled, is the main function of the device that meters liquid refrigerant into the evaporator—the expansion valve, float valve, or capillary tube.

Pressure drop is the result of one or both of two conditions:

1. The weight of the refrigerant itself may cause pressure drop. This is of greater consequence in vertical liquid lines, but it can be sufficient to warrant consideration in long up-flow suction lines.

2. Pressure drop in either liquid or suction lines or in condensers, evaporators, or other refrigerant passages, may be caused by anything that retards the flow of the refrigerant. Among these causes are undersize or too long pipe or tubing; restrictions such as kinks, sharp or flattened bends, undersize valves or fittings, orifices, internal fins, rough inner surfaces, or in fact anything that "crowds" or sharply diverts the flow of the refrigerant.

PRESSURE DROP DUE TO STATIC HEAD

In a vertical liquid line, the weight of the liquid in the line rests on the liquid at the bottom. At successive places up the line, the pressure due to the weight of the liquid, decreases, for there is less and less liquid above to add its weight; so the pressure of the liquid at the top of the liquid line is less than that at the bottom of the liquid line. This can be said in another way; there is a drop in pressure from the bottom to the top of the line.

The weight of the liquid is sometimes called "Gravity Head," "Static Head," or "Liquid Head." It varies with the refrigerants. It is greatest for the "heavy" refrigerants and least for the "lighter," less dense refrigerants.

Table 1 shows the static heads per foot of some of the common refrigerants, and these amounts are also, of course, the pressure drop per foot due to the weight of the refrigerants. The values are in pounds per square inch pressure for each one foot rise of the liquid refrigerant at 70°. At higher liquid temperatures, the values will be slightly less, and at lower liquid temperatures the values will be slightly more.

Refrigerant	Static Head P.s.i. Per Foot Rise
Ammonia	.26
Carbon Dioxide	.33
"Freon-11"	.64
"Freon-12"	.57
"Freon-21"	.60
"Freon-22"	.52
"Freon-113"	.68
"Freon-114"	.64
Methyl Chloride	.40
Methylene Chloride	.57
Propane	.22
Sulphur Dioxide	.60
Water	.43

To determine the pressure drop due to static head in liquid lines, multiply the number of feet rise by the above values. Please note that the

number of feet rise is not necessarily the length of the liquid line.

FACTORS AFFECTING LIQUID LINE PRESSURE DROP

The subject of pressure drop in the liquid line, has been discussed previously in this column, particularly in the issues of Aug. 14 and 28, 1949, (now in Manual J-1) and Sept. 3, 1951. The following quick review may be helpful.

a. There can be no hard and fast rule as to the maximum permissible total pressure drop. Good design endeavors to keep "Freon-12" liquid line total pressure drop within 5 to 7 p.s.i., but this would limit liquid lines to a rise of less than 10 ft. Generously sized liquid line rises of up to 20 ft. may not be prohibitive, but care must be taken that the expansion valves on such lines are of generous size also.

b. Pressure drop in the liquid line causes some of the liquid to vaporize due to the reduction in pressure, and the resultant vapor displaces so much liquid, that the expansion valve cannot pass enough liquid refrigerant, and the coil may be starved.

"Freon-12" flash gas due to a static head of 20 ft. may reduce the valve capacity about one fifth; for 40 ft. about one third.

c. The lower pressure of the liquid refrigerant as it arrives at the expansion valve inlet further reduces the capacity of the valve, for the pressure difference across the orifice of the valve is reduced.

d. Sub-cooling the liquid refrigerant to a saturation temperature corresponding to the reduced pressure at which the liquid arrives at the valve, will prevent the liquid from vaporizing and causing "flash gas" in the liquid line ahead of the expansion valve.

e. Loss of valve capacity due to reduction in the pressure of the liquid refrigerant at the inlet of the valve, may be offset by raising the condensing pressure as many p.s.i. as the pressure drop, so as to get it back up to the pressure of the liquid at the bottom of the liquid line.

This may be done by partially blocking the air flow through air cooled condensers, and by reducing the rate of water flow through water cooled condensers by adjusting the water control valve.

f. Raising the head pressure does not eliminate the pressure drop itself nor the formation of flash gas, but it does help in maintaining the capacity of the valve. Even then, the valve may prove to be too small due to the flash gas in the liquid to the valve. Flash gas in the liquid line may be trapped and purged through a by-pass to the suction line as described in Chapter 11, Manual J-1.

g. One of the most common causes of excessive pressure drop in liquid lines is a clogged drier or strainer. The pressure drop through one of these may be and frequently is, so much that the restrictor acts as an expansion valve, and the line beyond the restriction is chilled enough that it can be determined by the feel of the hand. This subject was discussed in this column in the April 3 and Aug. 7, 1950 issues.

Bubbles in the sight glass are usually flash gas, caused by pressure drop or by the liquid refrigerant becoming heated to a temperature above the saturation temperature of the refrigerant corresponding to its pressure.

TOTAL LIQUID LINE PRESSURE DROP

The total pressure drop in the liquid line consists of the pressure drop due to the weight of the liquid and to the restrictions and other conditions that retard the flow of the liquid.

Therefore, the pressure drop is due to static head, added to that due to restrictions, etc., gives the total liquid line pressure drop, and it is advisable that this be kept under 5% if possible, which for "Freon-12" is from 5 to 7 p.s.i.

The actual pressure drop can be determined by installing a high pres-

sure gauge in a tee just ahead of the expansion valve and comparing its reading with that of a similar gauge installed in a tee in the liquid line at the outlet of the receiver. The difference in readings is the pressure drop. Care should be taken that both gauges are accurate and zeroed together at atmospheric pressure. If the pressure drop through the condenser is negligible, the head pressure may be used instead of the pressure at the receiver outlet.

The Air Conditioning and Refrigerating Machinery Association (ACRMA) in their "Equipment Standard" state that liquid "Freon-12" flow through the liquid line should be at velocities below 300 f.p.m. Table 2 is taken from their data, and is based on 300 f.p.m. velocity and a total maximum pressure drop of 5 p.s.i. in a liquid line of 100 ft. equivalent, and on a 25° evaporator and with 105° condensing. The 5 p.s.i. should include the static head; but as a maximum, an additional 2 p.s.i. may be allowed, or a total of 7 p.s.i. pressure drop.

Table 2

Line Size Inches	Capacity In Tons Per 24 Hrs.
3/8" OD	1.14
1/2" OD	3.64
3/4" IPS	6.81
1" OD	6.81
1 1/8" IPS	12.6
1 1/2" OD	14.1
1 3/4" IPS	28.2
2" OD	28.2
2 1/4" IPS	48.1
2 1/2" OD	48.1
OD—outside diameter, type L, copper tube.	

IPS—Nominal size, extra heavy pipe. Since elbows, tees, etc., cause considerable pressure drop, they must be considered, and their total equivalent pressure drop in terms of feet of pipe subtracted from the 100 ft. Thus a 50-ft. line with a number of fit-

tings, may be equivalent in pressure drop to 100 ft. of horizontal line without fittings or restrictions. Equivalent feet of line for various valves and fittings will be shown in a later issue on pressure drop in suction lines.

(To Be Continued)

Bush Appoints Babin Asst. Sales Director

HARTFORD, Conn. — Continuing its recently announced sales expansion program, Bush Mfg. Co. announces the appointment of C. L. (Lee) Babin to the newly created post of assistant director of sales.

Babin, long associated with the industry in the East and with Cecil Boling Co., will be responsible for all product orders, literature, and customer relations for the sales department.

Another expansion of the sales department has been made by creating an Application Engineering division, which will be headed by R. B. Ebbets, formerly design engineer with George G. Sharp, Naval architect, New York City, and application engineer with Cecil Boling Co.

Christ W. Fedders Dies

BUFFALO—Christ W. Fedders, 75, co-inventor of the first water-cooled auto radiator and former vice president of the Fedders Mfg. Co., Inc., died Sept. 30.

In 1900, his father, the late Theodore C. Fedders, Sr., founded a radiator manufacturing plant here. Its growth kept pace with the auto industry's and in 1913, the business was incorporated as the Fedders Mfg. Co., Inc.

MISSING SOMETHING?

More and better useful information is yours for the asking. See "What's New" page.
Use Key No. for fastest service.



Marsh exclusively for more than 15 years

These are the words of Iddo W. Lampton, partner and general manager of Enochs Sales Company of New Orleans whose proud slogan is the "South's Original Refrigeration Supply House."

Mr. Lampton is at the right in the picture above, Everett McCracken, veteran counter man for Enochs Sales, in the middle, and R. G. Titherington, Marsh factory representative at the left.

There is good reason for the way Enochs Sales Company feels about Marsh instruments and equipment. "We have been handling Marsh gauges exclusively for fifteen years," Mr. Lampton told us, "and our customers do not shop for gauges, realizing that a fine gauge is a refrigeration man's best friend."

Enochs Sales Company was started 19 years ago in the little town of Fernwood, Miss. Shortly there was a branch at New Orleans and soon the tail wagged the dog with the result that the entire business was moved to New Orleans. Five years ago the firm branched out to Mobile. This firm is typical of supply houses throughout the country who have forged ahead on the basis of good products and good service. There is such a jobber in your community and of course he handles Marsh products. For better equipment and service —

SEE YOUR MARSH JOBBER

See our exhibit BOOTHS 319-321
NAVY PIER CHICAGO NOV. 5-8

MARSH INSTRUMENT COMPANY, Sales affiliate of Jas. P. Marsh Corp., Dept. D, Skokie, Illinois.



This great pair of Marsh testing gauges are, as Mr. Lampton says, truly a refrigeration man's best friend.

The new Marsh-Electromatic Solenoid valves, with bodies machined from solid brass bar stock, set new standards all their own.

MARSH

Refrigeration Instruments



SERVICEMAN SEEKS QUICK SYSTEM OF DIAGNOSIS

111 West 19th St.
Pine Bluff, Ark.

To Paul Reed:

I read your articles on refrigeration and really do enjoy them. I am a young married veteran with a wife and baby and on the Veterans on-the-job training under an older man, who says I am doing well.

But I would like to come up with something new that would give us a better and faster way to know or diagnose the troubles and make repairs. So I would like you to tell me just what I would need and how to use it to go up to a display case, walk-in, or open case and find out just what the trouble was and how to correct it.

I would also appreciate a list of your books on refrigeration.

DAVE BROWN

Answer: (By Paul Reed). Your letter touches on a phase of training refrigeration servicemen on which I have been giving a good deal of thought recently. I can very well remember that during the first year or two of my experience in refrigeration, I too would have been glad to have laid before me a specific blue-print or chart that would cover all and every condition that I encountered, in refrigeration service. Then it would have been quite simple to simply turn to the proper place in the chart and find the answer.

Trouble charts have been prepared and, in fact, you will find one that I prepared, in Volume J-2 of "Refrigeration Problems and Their Solution," and perhaps you would find it very helpful in analyzing service troubles. This chart is fairly complete, and if studied so that it can be used quickly, it should save you quite a little time.

It must be realized, however, that charts or other instructive material must necessarily generalize, for there are so many factors that may enter into a problem that it is not possible to pin-point instructions for any one set of circumstances. Your letter voices a common desire for "short cuts."

It is possible to provide shop and field kinks that may be helpful but the best short cut is a thorough knowledge of refrigeration and particularly refrigeration fundamentals. Only by being familiar with these fundamentals can one quickly and accurately analyze the cause of trouble.

Too many men are apt to discount the value of theory, but in my opinion, it is impossible for one to be any more than a valve changer or a mechanic who simply does what he is told unless he studies and becomes familiar with the fundamentals.

I am sorry that I cannot give you a nice, neatly printed, simple chart to meet all needs, but the subject of refrigeration is too diverse and there is no easy way to learn it.

Many of the articles published in the column "Refrigeration Problems" have been made up in book form under the title "Refrigeration Problems and Their Solution" and are available in five volumes (J-1, J-2, J-3, J-4, and J-5) which sell for \$1.50 each. They may be obtained either from your refrigeration supply wholesaler (if he handles such books) or from Business News Publishing Co., 450 W. Fort St., Detroit, Mich.

OHIO RIVER CITIES HAVE SOLVED WATER SHORTAGE

2329 E. Virginia
Evansville, Ind.

Editor:

On the front page of the Sept. 24, 1951, issue of the NEWS there is an article about a water shortage facing the nation. New York City and Washington, D. C. are mentioned.

Such news is disturbing, indeed, but it is comforting to know that a large number of cities in this nation have solved the water problem. This "know-how" information will in time spread to those more backward cities and end water shortages.

The solution to the problem is quite simple. Very little water is actually destroyed; it is used on a "once-through" basis and then thrown away. The cities along the Ohio River have recognized this to be a wasteful procedure and have worked out a very simple method to eliminate this waste. Each city takes as much water from the river as it needs, uses the water, and then puts it back into the river. The next city downstream takes it out, uses it again, and puts it back; this process continues on down the river.

Thereby, with a little make-up water from occasional rainfall to keep it from getting too thick to pump, the Ohio River provides an unlimited supply of water for innumerable cities, towns, and villages along its banks and eventually pours huge quantities of excess "water" into the Mississippi.

New York City would, I suppose, have to have pumps to force the sewage back into the reservoirs, but such pumping equipment would be less expensive than a lot of other proposed solutions I have heard. Some people may argue that such a process is unsanitary, but it can't be too bad, considering all the people along the Ohio who have survived it all these years. As a resident of a city well down the river, I can safely say that our water is as rich as that of nearly any other city.

I think that this present emergency can well be used to publicize this economical process being utilized by the Ohio River Valley Cities.

E. P. WHITLOW

cc: Dr. Leonard A. Scheele
U. S. Public Health Service
U. S. Surgeon General
Washington, D. C.

Charles H. Capen
American Water Works Assn.
521 Fifth Ave., New York City

A. A. Reed Will Represent Acme Industries In Michigan

JACKSON, Mich.—Acme Industries, Inc. announced the appointment of Arthur A. Reed as a sales representative for Michigan.

He will handle the sale of all Acme "Flow-Cold" products and the jobber line in this territory.

For the last six years, Reed was a manufacturer's representative for the Clark Bridgman Co. of Chicago, selling refrigeration equipment. From 1939 to 1945, he was a sales engineer for the Cherry-Burrell Co., working from Boston.

From 1927 to 1939 Reed was with Frigidaire Sales Corp. in various posts, and was a district sales engineer and later commercial district representative for Connecticut.



A. A. Reed

SLANTS on Service

"Slants on Service" is a new "package" devised by the NEWS to meet the needs of its busy readers in the service and contracting business. These helpful hints and suggestions for improved service methods and shortcuts have been assembled in capsule form.

Alternate Control Used

On Philco EH-121 Freezer

Due to a shortage of standard type temperature controls, Philco is using an alternate control on approximately 6,000 units of its model EH-121 freezer.

This control differs from the standard type in that it is composed of two parts. Use of this control results in the following changes:

1. A stamped aluminum escutcheon plate was placed over the standard escutcheon plate. See Fig. 1.

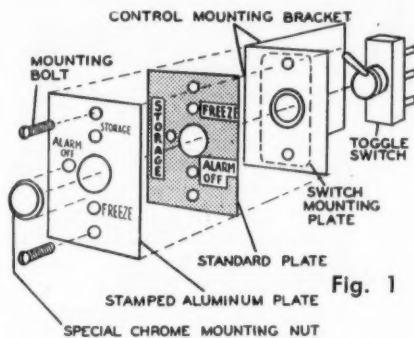


Fig. 1

2. A special chrome nut was used for mounting the toggle switch.

3. A switch-mounting place was used because the hole in the control mounting bracket is too large to accommodate the toggle switch.

4. A new bell-wiring harness and a new switch lead wire are used to connect the switch. See Fig. 2.

If the alternate control must be replaced, use the standard temperature control, Part No. 5530-8. To remove the alternate control switch, proceed as follows:

1. Remove and discard the special chrome nut.

2. Remove and discard the bell-wiring harness. See Fig. 2.

3. Remove and discard the stamped aluminum escutcheon plate. See Fig. 1.

4. Remove the toggle switch.

5. Remove all leads from the toggle switch. See Fig. 2.

6. Remove the switch mounting plate. See Fig. 1.

7. Replace the standard escutcheon plate.

The alternate temperature control is mounted at the rear of the motor-compressor, on a bracket held in place by one of the compressor mounting bolts. To remove the alternate control, proceed as follows:

1. Remove the control mounting bracket.

2. Remove the alarm lead from the control (this lead is part of the bell-wiring harness). See Fig. 2.

3. Remove the switch lead from the control.

4. Remove and discard the lead between the control and the terminal block.

5. Remove the control.

The procedure for installing the standard temperature control is given in PR-1922-B. When replacing the alternate temperature control with the standard type, the following additional steps are necessary:

1. Use the switch lead, shown in Fig. 2, to connect the standard control to the terminal strip.

2. Install wiring harness, Part No. 6258-4, in place of the bell-wiring harness shown in Fig. 2.

Wiring harness, Part No. 6258-4 must be ordered along with the

standard control if the standard control is to replace an alternate control.

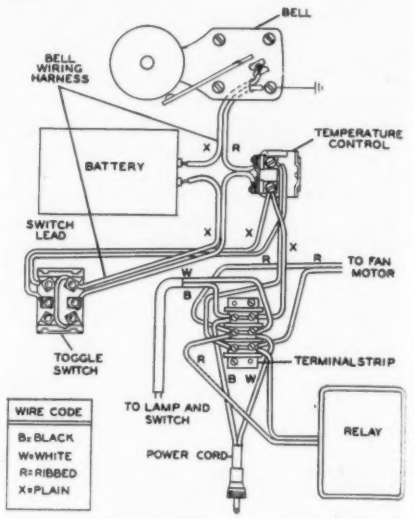


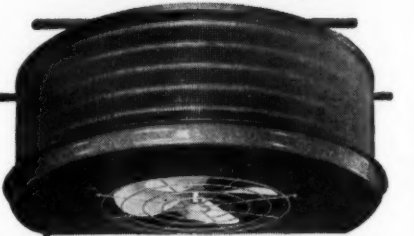
Fig. 2

JUST ASK US!

Turn to "What's New" page for useful information.

LOOK to LARKIN

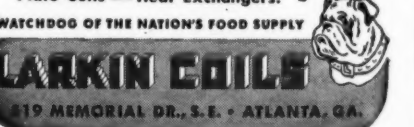
For Efficiency



LARKIN HALF-TURRET HUMI-TEMP

Efficient operation makes a product easier to sell on one hand; builds solid customer satisfaction on the other. Precision engineering—only the best materials—skilled craftsmanship—and almost 25 years experience in commercial and industrial refrigeration—all add up to higher efficiency for every Larkin product. And this means lower operating costs — important to buyer and seller alike.

Manufacturers of the original Cross-Fin Coil — Humi-Temp Units — Evaporative and Air Cooled Condensers — Air Conditioning Units and Coils — Direct Expansion Water Coolers — Steel Vacuum Plate Coils — Heat Exchangers.



WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS

119 MEMORIAL DR., S.E. • ATLANTA, GA.

WE WILL BUY!

DRYERS, BELTS, DEFROST TRAYS, ICE CUBE TRAYS, ETC.

ANY QUANTITIES • MUST BE NEW

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TRACO Industrial Corp.

455 W. 19 St., N. Y. 19, WAtkins 4-4302

(Send for Traco's complete list of sensational bargains.)

Stores More in Less Space... Cools Faster!

Speed-Freeze

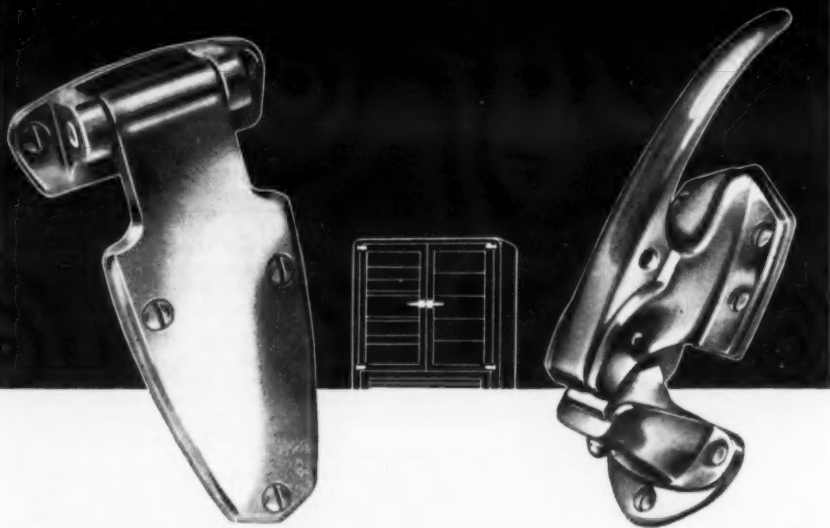
bottle beverage coolers

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IDEAL COOLER CORPORATION
2953 EASTON AVE., ST. LOUIS 6, MO.

Grand Rapids Brass

COMMERCIAL REFRIGERATION HARDWARE FOR NEW EQUIPMENT OR REPLACEMENT



Locks, Strikes and Hinges that Contribute to Quality in the World's Finest Refrigerators

Grand Rapids Brass Company

GRAND RAPIDS, MICHIGAN

A DIVISION OF CRAMPTON MANUFACTURING COMPANY

Step right on up... come in a little closer... see the greatest exhibition on earth—the All-Industry Show at Chicago November 5, 6, 7 and 8! RANCO will be there—booths 443 and 447—with a display of the most complete line of Refrigeration Replacement Controls ever shown to the trade. You're cordially invited to visit RANCO headquarters at the show... and bring your control problems with you.



Ranco Inc.

COLUMBUS 1, OHIO

WORLD'S LARGEST MANUFACTURERS OF REFRIGERATION CONTROLS



New Items and Educational Exhibits To Highlight 7th All-Industry Exposition

Dispensers Inc. Offers New Carbonator Tank

A carbonating tank that features a permanent magnetic switch which eliminates the use of belts, relays, pulleys, electrodes, or pump packing washers, will be introduced at the All-Industry Exposition by Dispensers Inc.

Claimed to be the first carbonator of its type shown at a refrigeration show, the unit will be the center of attraction at the company's booth. Dispensers Inc. also plans to show a new line of automatically refrigerated soft drink equipment currently being used by several large soft drink manufacturers.

The company has incorporated in its equipment Selmix dispensers used by national syrup manufacturers.

Recold Offers Animated Exhibit of 'Dri-Fan'

One of the main attractions in the exhibit of Refrigeration Engineering, Inc., Los Angeles, will be a large-sized animated display of the company's "Dri-Fan" evaporative condenser.

The display will graphically explain what the "Dri-Fan" principle is, and how its use in Recold evaporative condensers and cooling towers eliminates corrosion and scale deposit in the fan section, according to the company.

In addition, Recold will also have working demonstrations of other types of its equipment, such as the water defrost and Delta blower coils.

Hy Jarvis, vice president and general manager; Harry Quinn, director of sales; and Dan D. Wile, chief engineer, will be in charge.

McIntire Will Tell 'How, Why' of DFN Drier

Main effort of McIntire Connector Co. personnel at the All-Industry Exposition will be to tell all and sundry how and why the DFN drier performs its job, H. A. Chandler, secretary of the company, declared.

A feature of the company exhibit, he said, will be the use of transparent drier and filter shells installed on operating refrigeration systems so that the visitor can witness the accumulation of moisture and sediment as accomplished with the DFN.

Enlarged charts and graphs will also be employed to establish a point technically as well as to determine the correct size of drier.

Some new heavy duty filters and driers will be introduced, Chandler added.

At the McIntire booth will be L. S. Dunn, president; J. C. Howe, Jr., treasurer; J. G. Beierlein, production manager; M. J. Meikeljohn, special sales representative; and Chandler.

Copeland Display To Feature Jobber Coverage

Copeland Refrigeration Corp. will feature its jobber coverage in a background display. This will be done by means of a map with lights and a screen in which the jobber's name appears simultaneously with the lighting of his location.

The company will show about 20 cutaway Copelametic motor-compressors and belt-driven compressors. Several of these will be in compartments with transparent mirror fronts. One compressor at a time will come into view as the lights in the box come on. The sequence will be repeated for both the belt-driven and Copelametic models which will be shown in separate sections at either side of the booth.

Officials who will attend are H. E.

FOR SALE

Large number of new 1/2 h.p. Compressors. Tecumseh S-88. Freon 12. B/M-1031-20-4. Charged with 40 oz. oil and charged with 12 P.S.I. dry nitrogen. Spencer relay. Spencer overload. Write or call

Sanitary Refrigerator Co., Fond du Lac, Wisconsin

Thompson, president; F. J. Gleason, vice president-treasurer; C. L. Curtis, vice president, production; O. H. Buschmann, vice president, engineering; W. G. von Meyer, sales and advertising manager; Rudy Berg, assistant sales manager; D. H. Bodine, service manager; and Bert Kaple, J. L. Zant, A. E. Cadwell, F. E. Jernberg, and O. G. Tinkey, district mgrs.

Crosley Additions--

(Concluded from Page 1, Column 3)

It is understood that the room air conditioners will be manufactured by Fedders-Quigan Corp. Recently, Radio Corp. of America announced that Fedders-Quigan will manufacture three window-type air conditioners designed by RCA engineers and to be sold under the RCA label.

Crosley will manufacture the dishwasher.

New Excise Taxes--

(Concluded from Page 1, Column 5)

washing machines, since neither the Senate nor House approved such a tax. The 10% tax already applies to electric blankets. Electric heating pads would be exempted under the bill, as would garbage disposal units and electric shavers. The Senate had approved application of the tax to garbage disposers and the House had approved taxing electric shavers.

DiSalle Suggests--

(Concluded from Page 1, Column 5)

that the House is just beginning to consider his proposals and adjournment is not too far away. His revisions are now in the hands of the banking committee.

Even if they are approved by that committee they face a phalanx of Administration foes in the rules committee which could keep the measure from even reaching the House floor. Assuming it did reach the floor in time, it will still be subject to attack and delay by other representatives.

What D'ya Know?

What did you see in this issue? Try your memory on these clues about news and advertising. If you get the answer on the first clue, score 5; second clue, score 3; final clue, score 1. Excellent, 25-30; Good, 18-24; Fair, 12-17; below 12, Poor.

1. (a) Unusual sales contest prizes. (b) Incentive plan has many applications. (c) "Just people" become "very important people" for awhile.
2. (a) Goshen, Ind. firm offers a "hot sales tip." (b) Do it this way, they suggest: "See 'em, tell 'em, sell 'em." (c) Result should be the sale of a Series 275 oil protection control.
3. (a) A well-known advertising man says, "It isn't size that makes an advertisement great." (b) A "how to" article for the small advertiser. (c) This guide to smart advertising and merchandising is

a regular NEWS feature.

4. (a) Waterbury firm offers a "prize package" for refrigeration. (b) An Indian arrowhead is its trade-mark. (c) "Anaconda" is its trade name.

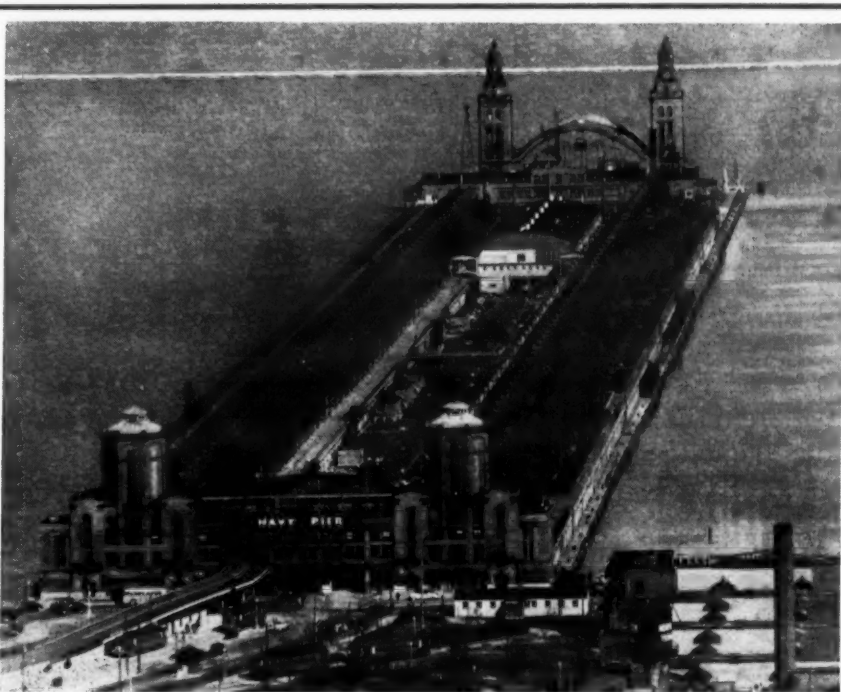
5. (a) Basic requirements for standardization of refrigeration condensing units. (b) Suggestions made by Munitions Board Standards Agency. (c) Equipment to be used by the military.

6. (a) Morton Grove, Ill. firm introduces new evaporator. (b) Features moveable steel legs. (c) Called the B & G series "HR."

Answers:

1. V.I.P. Service, Inc., pp. 8-9. 2. Penn Electric Switch Co., pp. 10. 3. Telling and Selling, pp. 13. 4. American Brass Co., pp. 24. 5. Refrigeration standardization, pp. 1. 6. Bell & Gossett Co., pp. 4.

THE BIG ALL-INDUSTRY "Show Issue" of The NEWS • NOVEMBER 5 •



7th All-Industry Exposition, Navy Pier, Chicago, Nov. 5-8

Indications are the 7th All-Industry Exposition will be the biggest of all time from the standpoint of exhibits and attendance. "The Show Issue" of the NEWS will be distributed there.

The Paper Everybody Grabs As Soon As He Arrives!

The traditional "Show Issue" of the NEWS serves a mighty useful purpose.

It widens interest in the Exposition and in the industry as a whole. It helps exhibitors attract more buyers to their exhibits. It helps buyers and visitors find their way around.

It puts exhibitors in contact with buyers . . . buyers in contact with suppliers. It's a mighty useful issue.

The "Show Issue" will be dated November 5 and will be distributed at the Exposition, the same as it has been in the past.

It will be ready for distribution as soon as the Exposition doors open . . . and it's the issue every buyer and visitor grabs as soon as he arrives.

In it the visitor at "The Big Show" finds a complete summary of the Exposition, a complete list of

exhibitors and their products, the floor plan with key to exhibits, information on new products, new models, "first showings" . . . and a world of information of immediate help to him in getting full value from the Exposition.

"The Show Issue" carries the news of association meetings, conventions, and industry events scheduled to be held during the week of the Exposition.

It's the "pay-off" issue for exhibitors whose advertisements bring more buyers to their booths . . . make the exhibit more resultful.

And for non-exhibitors, the next best thing to an exhibit is an advertisement in this great issue.

All advertisers reap extra benefits from this "Working Souvenir Issue" . . . it "Goes Home" with buyers for many re-readings.

Make advertising reservations NOW!

Regular advertising rates apply—no increase. Advertising closes Oct. 26. For best advertising positions in this issue, plates and advertising materials should be in as soon as possible before Oct. 26 deadline.

AIR CONDITIONING & REFRIGERATION NEWS

The Newspaper of the Industry

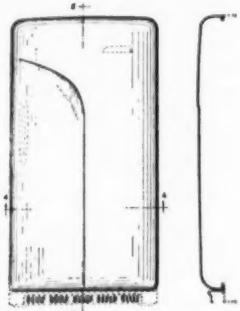
(See us at the Show — Booth 429.)

PATENTS

Week of July 10 (Cont.)

DESIGNS

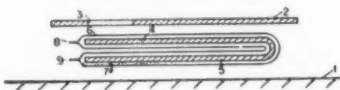
163,916. **REFRIGERATOR CABINET.** John H. Walter, Grosse Pointe, Mich., assignor to Motor Products Corp., Detroit, Mich., a corporation of New York. Application Jan. 22, 1951, Serial No. 13,907. Term of patent 14 years. (Cl. D67-3.)



The ornamental design for a refrigerator cabinet, substantially as shown and described.

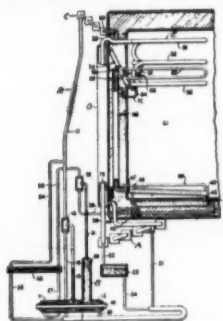
Week of July 17

2,560,537. **DEFROSTING INDICATOR.** Ariel A. Andersen, Albany, Calif., assignor to the United States of America as represented by the Secretary of Agriculture. Application July 8, 1949, Serial No. 103,661. 10 Claims. (Cl. 99-192.) (Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757.)



1. A defrosting indicator comprising a strip of paper encased in a transparent tube, said encased strip being folded upon itself whereby to crimp said tube upon said strip thus to divide it into a first portion and a second portion and to substantially prevent movement of liquids from one portion to another except by diffusion through said paper, a cover providing means for attaching said strip to a package, an opening in said cover, said opening giving visibility to a part of said first portion, a dyestuff and an organic solvent being deposited on said second portion.

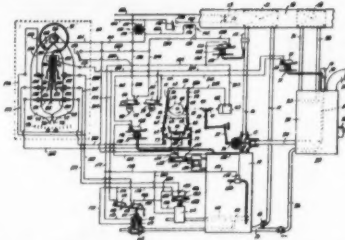
2,560,790. **MULTITEMPERATURE ABSORPTION REFRIGERATING SYSTEM USING MULTIPLE STAGES OF GENERATION.** Curtis C. Coons, North Canton, Ohio, assignor to The Hoover Co., North Canton, Ohio, a corporation of Ohio. Application April 5, 1947, Serial No. 739,604. 12 Claims. (Cl. 62-119.5.)



1. That improvement in the art of refrigeration which includes the steps of vaporizing refrigerant from solution having a first range of concentration of refrigerant in an absorber, vaporizing other refrigerant from solution having a second range of concentration of refrigerant in an absorber in which the maximum and minimum refrigerant concentrations are less than the maximum and minimum concentrations respectively in said first concentration range, liquefying all of said vaporized refrigerant, vaporizing a portion of said liquefied refrigerant into an inert medium refrigerant vapor mixture having a first range of concentration of refrigerant in inert medium, vaporizing the remainder of said liquefied refrigerant into an inert medium refrigerant vapor mixture having a second range of concentration of refrigerant in inert medium in which the maximum and minimum refrigerant concentrations are less than the maximum and

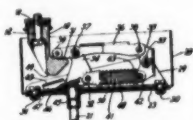
minimum concentrations respectively in said first concentration range of refrigerant in inert medium, absorbing refrigerant vapor from inert medium in said first concentration range of inert medium into absorbing solution in said first concentration range of absorbing solution, absorbing refrigerant vapor from inert medium in said second concentration range of inert medium into absorbing solution in said second concentration range of absorbing solution, and maintaining said second concentration ranges of absorbing solution and inert medium lower than said first concentration ranges of absorbing solution and inert medium respectively by rejecting heat from inert medium and absorbing solution in said second concentration ranges to refrigerant and inert medium in said first concentration range.

2,561,067. **MULTIPLE STAGE AIR CONDITIONING SYSTEM.** Alvin B. Newton, Dayton, Ohio, assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Aug. 17, 1945, Serial No. 611,133. 12 Claims. (Cl. 257-3.)



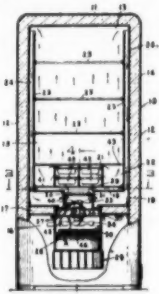
3. In control apparatus for flow controlling means for air conditioning apparatus, in combination, motor means for actuating said flow controlling means, first switch means, second switch means, and cam means operated by said motor means for actuating said first and second switch means, said cam means having a high, an intermediate and a low portion, said low portion extending substantially half the angular extent of said cam means, one of said switch means controlling the energization of said motor means in such manner that said motor means is normally stopped with both of said switch means being positioned by the high and intermediate portions of the cam means.

2,561,201. **REFRIGERATION LATCH.** Francis M. Hogg, Findley Lake, N. Y., assignor to General Electric Co., a corporation of New York. Application Oct. 31, 1947, Serial No. 783,245. 11 Claims. (Cl. 292-332.)



8. A door latch adapted to engage a strike and comprising a supporting structure, a pair of spaced links pivotally mounted on said structure, a latch bolt carried by said links, means for actuating one of said links to move said latch bolt toward its retracted position, and a trigger adapted to engage the strike for moving said latch bolt from its retracted position toward its latching position, said trigger being moved to strike-engaging position by said one of said links during the actuation of said one of said links for moving said latch bolt toward its retracted position.

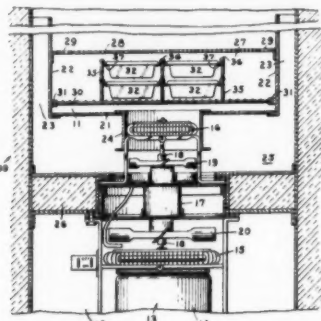
2,561,276. **REFRIGERATOR CABINET CONSTRUCTION.** Walter P. Hill, Detroit, Mich., assignor to Calumet and Hecla Consolidated Copper Co., Calumet, Mich., a corporation of Michigan. Application Aug. 2, 1948, Serial No. 42,045. 7 Claims. (Cl. 62-117.3.)



3. In a refrigerator, a cabinet having first and second compartments positioned one above the other, means separating the compartments and thermally insulating one compartment from the other, said means including a division wall of heat insulating materials in the cabinet having a central section removable to provide an opening through said wall, means for

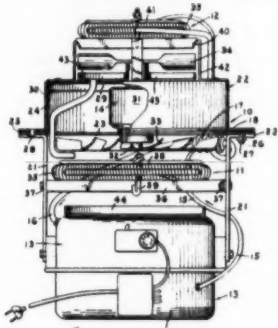
circulating refrigerated air in the first compartment including a cooling element positioned in the first compartment adjacent the bottom of the latter and a fan also positioned in the first compartment fan flowing air over the cooling element, a motor for driving the fan substantially enclosed by the removable central section of the division wall and secured to the latter, and refrigerant supplying apparatus located within the second compartment and connected to the cooling element.

2,561,277. **ICE TRAY SUPPORTING ASSEMBLY FOR REFRIGERATORS.** Walter P. Hill, Detroit, Mich., assignor to Calumet and Hecla Consolidated Copper Co., Calumet, Mich.



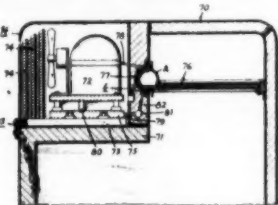
1. In a refrigerator, a cabinet comprising a cold storage compartment having a bottom wall provided with an opening, a partition in the cold storage compartment spaced above the bottom wall and cooperating with the latter to form a freezing chest, means for forcibly moving air upwardly through the opening in said bottom wall into the freezing chest and through an opening in said partition into the storage compartment, and refrigerating apparatus including a cooling element supported in the path of air flow and positioned to cool the air entering the freezing chest.

2,561,278. **REMOVABLE REFRIGERATING APPARATUS.** Walter P. Hill, Detroit, Mich., assignor to Calumet and Hecla Consolidated Copper Co., Calumet, Mich., a corporation of Michigan. Application Aug. 2, 1948, Serial No. 42,047. 6 Claims. (Cl. 62-140.)



1. In refrigerating apparatus, a cooling unit having provision for circulating a refrigerant therethrough, refrigerant supplying means including a condenser and a compressor spaced from the cooling unit, a fan positioned adjacent the cooling unit for forcibly moving air over the latter, a second fan positioned adjacent the condenser for forcibly moving air over the condenser, driving means for the fans positioned between the cooling unit and refrigerant supplying means an enclosure for the driving means and forming a partition separating the cooling unit from the refrigerant supplying means, and means for securing the cooling unit, refrigerant supplying means and fan driving means to said partition to provide a unitary assembly.

2,561,305. **SECONDARY HEAT EXCHANGER IN REFRIGERATION SYSTEM.** Alexander S. Limpert and Robin J. Limpert, Bay Shore, N. Y. Application April 21, 1947, Serial No. 742,874. 7 Claims. (Cl. 62-117.25.)



6. In a refrigerator, the combination comprising a thermally insulated cabinet having a cooling compartment, a main refrigerating circuit, including a primary evaporator and a primary condenser, means for circulating refrigerant through said circuit, a secondary condenser of high heat-radiating capacity which comprises two portions, one of which is spaced from the primary condenser and externally mounted on and directly attached to said cabinet and exposed to air currents external of the cabinet, and the other portion being in intimate thermal contact with said primary condenser, said secondary condenser having a refrigerating circuit entirely distinct from the primary refrigerating circuit, a secondary evaporator being disposed in good heat exchange relation to the primary evaporator and having an individual refrigerant circuit entirely distinct from the primary circuit, said primary evaporator, primary condenser, primary refrigerating circuit and means for circulating refrigerant therein being removable as a unit from said refrigerator without the breaking of any points in the circulatory system thereof and without in any way disturbing the secondary condenser that is attached to said cabinet.

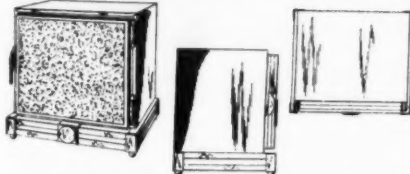
AVAILABLE FOR LICENSING OR SALE

Pat. 2,505,393. Combined Filter, Drier, Heat Exchanger, and Surge Resistor for Electrical Refrigerators. Patented April 25, 1950. Combined filter and dehydrator unit for electrical refrigerators has a space for trapping non-condensable gases, air, etc. A cylindrical container has an inner chamber into which refrigerant from

evaporator is directed. High pressure refrigerant from compressor passes through a surrounding outer chamber containing a filter screen. A space is provided between the chambers for a dehydrating agent. The refrigerant in outer chamber causes refrigerant in inner chamber to boil off as a relief from the surge liquid and change to a low pressure gas which enters compressor unit. (Owner) William H. Gurned, 1532 Hicks St., Augusta, Ga. Groups 33-71; 35-84. Reg. No. 42,942.

DESIGNS

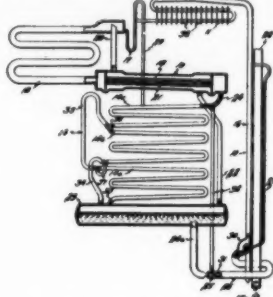
163,983. **REFRIGERATOR.** Raymond A. Wyatt, Detroit, Mich. Application March 5, 1951, Serial No. 14,382. Term of patent 7 years. (Cl. D67-3.)



The ornamental design for a refrigerator, as shown.

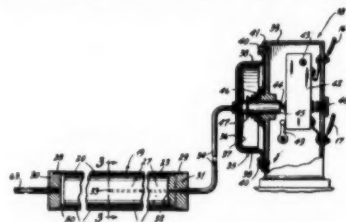
Week of July 24

2,561,389. **ABSORPTION REFRIGERATION SYSTEM.** Axel Gosta Hellstrom, Stockholm, Sweden, assignor to Aktiebolaget Electrolux, Stockholm, Sweden, a corporation of Sweden. Application Feb. 26, 1948, Serial No. 11,015. In Sweden Feb. 28 1947, 7 Claims. (Cl. 62-119.5.)



1. In a method of refrigeration with the aid of a system having a circuit for inert gas including an evaporator and an absorber and provisions for introducing liquid refrigerant into the gas circuit for flow through the evaporator and introducing absorption liquid into the gas circuit for flow through the absorber, said circuit having first and second places through which inert gas is circulated in parallel paths of flow, the improvement which comprises introducing inert gas into said two places at substantially the same partial pressure of refrigerant vapor, flowing inert gas from said two places in a common path of flow through a third place, and flowing one of said liquids introduced into said circuit through said third place and from the latter through said two first-mentioned places in succession from one to another.

2,561,437. **TEMPERATURE SENSITIVE DEVICE FOR ICE BANK CONTROLLERS.** Clifton A. Cobb, University City, Mo., assignor to Missouri Automatic Control Corp., St. Louis, Mo., a corporation of Missouri. Application Nov. 2, 1948, Serial No. 57,859. 6 Claims. (Cl. 297-3.)



1. In a device of the class described, a temperature sensitive bulb comprising a relatively thick walled outer tube of circular cross-section, a relatively thin walled inner tube flattened so as to have relatively extensive and substantially flat and parallel opposite side walls and rounded edges arranged within said outer tube, an elongated filler member within said inner tube extending substantially the full length thereof, said filler member having rounded edges contiguous with the rounded edges of said inner tube and having transversely concave surfaces opposite the flat walls of said inner tube, said outer tube having sealed ends and containing a freezing liquid, said inner tube being sealed at one end and containing a non-freezing motion transmission fluid, an outlet at the other end of said inner tube, and means providing communication between the spaces lying on opposite sides of said filler member.

2,561,633. **SYSTEM FOR REFRIGERATING AIRCRAFT STORAGE COMPARTMENTS.** Everett P. Palmatier, Solway, N. Y., assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application May 14, 1947, Serial No. 748,106. 4 Claims. (Cl. 62-136.)



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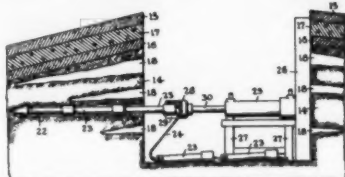
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address	address	address	address
city	city	city	city
zone	zone	zone	zone
state	state	state	state
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1. In a refrigeration system for aircraft, the combination of a passenger space maintained at a pressure greater



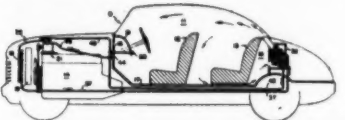
than the pressure of the surrounding atmosphere, a second storage space at a pressure less than the pressure of the first space, and means for receiving air from the first space and for expanding the air supply to the second space to maintain the second space at a lower temperature than the first space.

2,561,676. **METHOD OF LOWERING ICE-BUCKLED FLOOR FLOORS.** Alonso W. Ruff, York, Pa., assignor to V. C. Patterson & Associates, Inc., York, Pa., a corporation of Pennsylvania. Application Jan. 12, 1950, Serial No. 133,112. 6 Claims. (Cl. 61-36.)



1. The method of lowering the earth-laid floor of a refrigerated room, which floor has been buckled upwardly by the formation of ice accumulations in the subjacent earth, the steps comprising: sinking a pit into the earth adjacent the buckled area of the floor; disposing heating conduits substantially horizontally through at least one sidewall of said pit into the iced earth beneath said buckled area; and supplying heat to said conduits for a period sufficient to melt the ice accumulations and dry the earth beneath said buckled area to thereby permit the buckled floor to settle back to normal position under its own weight.

2,561,876. **AIR COOLING INSTALLATION FOR AUTOMOBILES.** Obie P. Leonard, For Worth, Tex. Application Sept. 26, 1949, Serial No. 117,835. 1 Claim. (Cl. 62-117.1.)



An air cooling installation for an automobile having a closed passenger compartment, seats within said compartment, an engine within the forward end of said automobile, a rear compartment adjacent the first said compartment and a dashboard forwardly of one of said seats, said installation comprising: a compressor mounted on and directly driven by said engine, said compressor including a refrigerant inlet and a refrigerant discharge, a housing positioned within said rear compartment and adjacent said passenger compartment, a cooling unit within said housing, a tubular line connecting said discharge of said compressor with said cooling unit, and a return tubular line connecting said cooling unit with said inlet of said compressor, a by-pass line connecting said return line with the first said line, a manually controlled valve connected with said by-pass line and positioned for operation from said dashboard, air discharge ducts in the upper surface and in opposite ends of said housing and directed over the adjacent said automobile seat, means supporting the last said seat in a raised position and above an inlet opening in said housing wall near the bottom thereof, fans mounted within said housing and opposite the inner ends of said ducts, and speed control means mounted on said dash for controlling the speed of said fans.

(To Be Continued)

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Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing office under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid is made.

DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Maritan Arsenal; Rock Island Arsenal; Springfield Arsenal; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. Ordnance District Offices do not have information on any other purchases.

Invitations for Bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q" or, if numbered, the number will be followed by the letter "Q."

Description	Quantity	Invitation No.	Opening Date
Commanding Officer, Rock Island Arsenal, Rock Island, Illinois			
Fan, complete, Albertson & Co., 150 ea		(11-070-52-245B)	2 Nov 51
Inc., No. 1675-207 or equal			

CONTRACTS AWARDED AS OF OCT. 4, 1951

Rock Island Arsenal, Rock Island, Illinois
Installation of air conditioning system in north section of Bldg. 350 of Rock Island Arsenal.—2 fls., \$121,890.—Conditioned Air Corp., 220 New York Ave., Des Moines, Iowa.
Installation of an air distribution system in Bldg. 350, Rock Island Arsenal.—3 fls., \$54,857.—Frank Winter Heating Co., 1025 W. 4th St., Davenport, Iowa.
Ships Parts Control Center, Naval Supply Depot, Mechanicsburg, Pennsylvania
Valves.—288, \$26,721.—Alco Valve Co., 865 Kingsland Ave., St. Louis, Missouri.
Repair parts for refrigeration equipment.—9,185, \$87,806.—Frick Co., 320 Broadway, Waynesboro, Pennsylvania.
Chicago Quartermaster Depot, QM Purchasing Division, 1819 West Pershing Road, Chicago 9, Illinois
Refrigerators, prefabricated.—30 ea., \$147,732.—Husmann Refrigerator Co., 2401 N. Leffingwell, St. Louis, Missouri.

Rockford, Ill. Sets Up CTIS Program Even Though They Have No TV Station

ROCKFORD, Ill.—Announcement of the formation of a new television organization, the Rockford CTIS Association, Inc., was made with a full-page advertisement in the two leading local daily newspapers and a large number of supporting advertisements by individual retailers.

Officers of the new corporation are Roy Pearson, president; Howard Mitchell, vice president; C. T. Van Ausdall, secretary; and Gunnar Smidt, treasurer.

"Although Rockford as yet has no television station and prospects for one in the immediate future are not too bright, the local dealers and servicemen feel that inauguration of the CTIS program at this time will do much to stabilize the television industry here and protect the public," Van Ausdall, of the Rockford Chamber of Commerce, and secretary of the new organization said. "We want to acknowledge and express our appreciation for the assistance given all along the line by the NARDA office and staff."

"Let's talk television . . ." the advertisement announcing the organization read. "TV owners demand dependable installation and service!"

Here's why CTIS is important to you. . .

"CTIS" is the abbreviated name for Certified Television Installation and Service. It is an organization sponsored and operated by leading appliance and television firms in the greater Rockford area.

"CTIS" is in Rockford for only one reason—to assure the owners of television sets that they can get the right kind of installation and service. TV isn't a makeshift operation. Only when it is installed properly and serviced correctly can you get satisfaction from its use. 'CTIS' dealers have thoroughly trained technical staffs to handle TV the way that the manufacturer intended it should be handled.

"Every installation and every service call is backed up with an iron-clad guarantee known as the 'Owner's Certificate,' which could only be offered by reputable business firms who are staking the future of their business on your satisfaction."

This was followed by a reproduction of the CTIS Owner's Certificate and the CTIS Code and signed by 21 Rockford retailers and servicemen.

Edwards, Galazzi, and Hinkel In Shift at International Harvester

EVANSVILLE, Ind.—A three-way change in the top engineering posts of International Harvester's Refrigeration division has been announced by C. D. Harris, manager of engineering for the division.

The change



A. R. Edwards



L. H. Hinkel

came as a result of the resignation of W. E. Mahaffay as chief engineer of the Refrigeration division's Advanced Engineering group to become executive engineer for Whirlpool Corp. It covers two of the Refrigeration division's engineering groups and establishes a new Experimental and Test group.

A. R. Edwards, formerly assistant chief engineer, Product Engineering group, will head the new Experimental and Test group as assistant chief engineer. L. H. Hinkel has been promoted from advanced design engineer to assistant chief engineer, Advanced Engineering group. J. A. Galazzi, also an advanced design engineer, has been promoted to assistant chief engineer, Product Engineering group.

J. S. Palmer will continue as chief engineer of the Product Engineering group.

Edwards was graduated from Rice Institute in 1931 as an electrical engineer. He held engineering positions with the Power Cost Engineering Co., San Antonio, Tex.; Fuhrman & Forster Co., Chicago; and the Frigidaire division of General Motors.

After serving in the navy as a lieutenant commander during World War II, he started his employment with International Harvester as staff assistant to the manager of manufacturing of the Refrigeration division. He was made a production design engineer in 1946 and assistant chief engineer for the Product Engineering group in 1949. He is a member of the American Society of Refrigerating Engineers.

Hinkel attended Morton Junior college and the Illinois Institute of Technology. He started with International Harvester in 1934 and joined the Refrigeration division in 1944.

In 1946 he was made an assistant product engineer. He was promoted to product engineer in charge of household refrigerators in 1947 and two years later was promoted to advanced design engineer. He is an associate member of the American Society of Refrigerating Engineers.

Galazzi took his B.S. degree in mechanical engineering at Tufts college in 1936. He worked for York Corp., American Instrument Co., and Liquid Carbonic Corp., until 1949, when he took a position with International Harvester's Refrigeration division as a research engineer. He is a member of ASME and ASRE.

Frozen Foods Industry Seen To Be Good Risk by Pacific Coast Banker

WASHINGTON, D. C.—There is no longer any justification for associating frozen foods with frozen loans, according to one of the country's leading banking authorities.

Ivan R. Bean, vice president of the Bank of America, whose lending operations cover the important Pacific Coast food freezing area, has just published a study on the industry and concludes that with the progress now achieved, "It is reasonable to expect that where justifiable credit is extended to frozen food processors, repayment will be as orderly as any similar credit extended to members of any other industry."

Bean's article, prepared for the Robert Morris Associates Bulletin which circulates among bankers, traces the early development of the frozen foods industry, the problems that have been faced, and discusses the expansion in production and distribution that has been achieved. Bean goes into some detail on the difficult period the industry experienced in the middle 1940's, and particularly the immediate postwar era when there was over-expansion and laxity so far as quality was concerned. But he concludes that "After the dust settled, however, there was found a financially healthier industry, and the bankers had another credit lesson under their belts."

In the course of his discussion, Bean analyzed the particular credit requirements of the food freezing and distributing trade, and outlined various factors which bankers must consider in appraising loan applications.

Summing up his views, Bean sketched this picture of the industry's outlook as he sees it:

"The frozen food industry has overcome what appeared to be insurmountable obstacles. Thought has been applied to every phase of the

operation, from selecting the type of seed to educating the consumer in the proper preparation and use of its product.

"This industry, even more than others, recognizes there is still a big job to be done. But it can be congratulated on its attainments to this time, for now it can rightfully claim that the industry produced a major food service to modern living. With a continuation of the energy, courage, and resourcefulness shown to date, it is reasonable to expect further rapid growth."

WANTED

Designer draftsman, top quality, experienced in sheet metal design for commercial refrigerated cases, refrigerators, etc. Permanent position with old nationally known manufacturer in small town near city in Michigan, Indiana, Ohio area. Good working and living conditions. Salary in mid four figure range. Write fully. References will not be checked without permission.

Box 3830, Air Conditioning & Refrigeration News

WANTED COMPRESSOR DESIGNER

Compressor Designer wanted by prominent Chicago manufacturer of "open type" refrigeration compressors, 1/4 HP to 10 HP range. Must have solid background in this type of engineering design work with ability to analyze present design and make complete recommendations of redesign for greater efficiency and capacity. Age to 50. Good salary. Write Box 3814, Air Conditioning & Refrigeration News

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

POSITIONS WANTED

MANUFACTURERS REPRESENTATIVE—Age 29. Engineering sales background in window and packaged units. Experience in district field sales and sales administration. M. E. Degree. Desire connection with firm which offers advancement in accordance with ability. Write BOX 3838, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

SALESMAN: An unusual opportunity for salesman experienced in refrigeration to sell full line of refrigeration and display cases to wholesale and retail trade. All replies confidential. BELL REFRIGERATION CORPORATION, 18524 Detroit Avenue, Lakewood, Ohio.

AIR CONDITIONING and refrigeration mechanic—must have experience in servicing and installing large industrial systems. A. H. LUMM COMPANY, 2512 Albin Street, Toledo, Ohio, Phone Main 2264.

DISTRIBUTOR OF General Electric air conditioning package units and contract installations of 300 tons or more wants combination sales engineer, service manager with know-how to engineer and sell air conditioning, operate service department for profit. Submit resume, photograph, salary requirements. All replies confidential. BOX 3837, Air Conditioning & Refrigeration News.

SALES ENGINEERS with refrigeration and air conditioning experience wanted by leading manufacturer of Lowside Equipment. Several excellent midwestern territories available. Send resume and background to BOX 3837, Air Conditioning & Refrigeration News. Interviews will be arranged in Chicago during All-Industry Show Week of Nov. 5.

EQUIPMENT FOR SALE

REFRIGERATOR DOORS. 3'6" by 6'6" double batten auto close doors complete with removable track heads for a 7'2" track. 1 1/2" corkboard insulation, 16 gauge metal clad. Brand new. \$95.00 each. Freight prepaid in U.S. Door height will be altered for anything up to and 11 ft. 2 in. track for \$15.00 additional. BIMEI CO., Cincinnati, Ohio.

BARGAIN: PATTERSON 160 ton dry expansion water cooler, 500 GPM, three "Freon" circuits, 4 tube passes per circuit, 30" diameter, 182" long, A.S.M.E. stamped, used less than three months and guaranteed to be in perfect condition, new cost \$5600.00, will sell outright or trade for good merchandise. GORDON LOZIER REFRIGERATION CORPORATION, 1612 California, Omaha, Nebraska.

1/4-HP open and sealed type prominent brands condensing units complete; brand new; limited quantity; act now; \$52 each FOB New York; write for specifications, other sizes also available; MANN REFRIGERATION SUPPLY CO., 15 Astor Place, New York 3, N. Y.

FOR SALE—Standard makes-new hermetic units—static & fan-cooled cond. 1/4-1/2, 1/2, 3/4, 1, 1 1/2. Open units 1/2, 3/4. Relays and overload protectors. Driers, T.X.V. valves, pressure controls, belts, fittings. Water-cooling coils for carbonated water. Send for your lists and prices on our many other parts and supplies at great savings. Sold on money back guarantee. WALTER W. STARR, 2833 Lincoln, Chicago, Ill.

BUSINESS OPPORTUNITIES

PROFITABLE COMMERCIAL refrigeration sales and service business, selling due to injury. Albuquerque, N. M. Health-defense-tourist center, 100,000 population. Prominent franchises, transferable. Ready-made business with excellent following. \$6000.00 price, covered by purposely low inventory. 1950 net \$12,000.00. Good personnel. Great possibilities. BOX 728, Albuquerque, N. M.

A MANUFACTURER of nationally distributed beverage coolers is seeking volume sales. Coolers are high quality, mass produced and our only product. We have an interesting proposition for carload purchasers. Our specialty is a completely self-contained plug-in type cooler in four sizes. BOX 3833, Air Conditioning & Refrigeration News.

FOR SALE: Refrigeration wholesale supply house located in New York State. Will take about \$75,000.00 to purchase outstanding stock, owner has other interests and wishes to go into semi-retirement. Will be available for consultation for reasonable period. BOX 3834, Air Conditioning & Refrigeration News.

WANTED TO buy—Established, good going refrigeration service business in California, Western or Southwestern state. Fully equipped shop desired, but not necessary if space permits expansion. Give full details and cash required. BOX 3839, Air Conditioning & Refrigeration News.

MISCELLANEOUS

FOR SALE—10,000 ft. copper Wolverine Tru Fin 1/2" I.D. copper tubing. Eight fins to the inch, fin outside diameter one-inch. Write A.R.A. MANUFACTURING COMPANY, 1041 Poch St., Fort Worth, Texas, Telephone: Edison-9461.

NORGE SEALED units remanufactured or exchanged. Immediate delivery from stock, 1 year warranty. Write for prices and shipping instructions. Genuine Norge terminals for Norge sealed units. Complete set of three, \$1.15 plus postage. MODERN REFRIGERATION CO., INC., 12541 E. McNichols Road, Detroit 5, Michigan.

'Jet Tower' Dishwasher Promotion Is Success

WARREN, Ohio—Reports from distributors indicate that the first anniversary trade-in promotion being staged through October on the Youngstown Kitchen "Jet Tower" dishwasher is "highly successful," according to J. A. Rishel, Jr., manager of appliance sales for the manufacturer.

During the promotion, customers get their choice of \$100 for their old sink or a \$119.50 garbage disposer with the purchase of either the 48-in. electric sink model or the 27-in. dishwasher.

Under the \$100 offer, the larger models are priced at \$289.95 and the smaller model at \$189.50. The majority of total sales up to a recent day were of the 48-in. model, factory reports showed.

Here's how sales were going in various cities: In Atlanta, Rich's department store sold 26 units in two weeks; in Dallas, the Jerrrell Co. moved 28 in the same period; in Nashville, Castner Knotts department store sold 14 between Sept. 19 and Oct. 3; in St. Louis, Phillips Kitchen Mart made seven immediate sales with its opening of the promotion.

The campaign was being backed by national, regional, and local advertising.

G-E 'Featurettes' Have Point of Sale Appeal

BRIDGEPORT, Conn.—A series of easy-to-read, point-of-sale displays, ready to be attached to refrigerators and freezers and providing a ready-made sales talk right on the appliances, has been made available to distributors and dealers by the General Electric Co.

Called "Featurettes," the five colorful, plastic sheets are printed on both sides with information on all features of the company's 1951 refrigerator and freezer models. The sheets will stick to appliances without glue or tape, are washable and easily removable, and can be used over and over again.

Also included in the display kit are seals featuring the G-E monogram and dependability seal and price stickers accompanied by "special" pencil. The price stickers are also reusable. It is priced at \$2.50.

Gillies, Peltz Named In Philco Appointments

PHILADELPHIA — Joseph H. Gillies has been appointed vice president and general manager of Philco Corp.'s Government and Industrial division, it was announced recently by William Balderston, president.

Balderston said the appointment was made in a further expansion of Philco's divisionalization program and to handle the greatly increased volume of industrial and government electronic production.

Robert F. Herr, vice president of the corporation, will continue to head all sales activities of the division as a general staff executive.

At the same time, William J. Peltz, who has been manager of government and industrial operations, was appointed vice president-operations of the Television and Radio division.

WE WILL BUY!

EXPANSION VALVES

SOLINOID VALVES, ALL TYPES

REF. FITTINGS and PARTS

ANY QUANTITIES • MUST BE NEW

Write, Phone Or Call For
IMMEDIATE ACTION

TRACO Industrial Corp.

455 W. 19 St., N. Y. 19, Watkins 4-4302

(Send for Traco's complete list of sensational bargains)

Folks Must Want 'Em

Home Freezers Once Again Play Role In Federal 'Government Scandal'

DETROIT—The home freezer is back in "government-scandal" daily newspaper stories, indicating that it continues to be a highly-desirable item.

In the summer of 1949, the press was telling the nation about the gifts of home freezers to Maj. Gen. Harry Vaughan and others in the Truman high command.

This time, the stories are about—among other things—a Senate investigator's charge that an income-tax agent here got a freezer at wholesale through another agent in his office and a local scrap iron and steel broker.

Henry R. Sunball, special agent in charge of the Detroit Intelligence Unit of the Bureau of Internal Revenue, admitted obtaining the freezer through Joseph J. Weyn, a special agent in this office assigned to steel tax cases, and Herman Golanty, the broker. But he denied he violated trust of office.

Here is Sunball's story of the freezer transaction:

"I happened to ask Mr. Weyn one day how he liked his freezing unit, knowing he had recently purchased

one. He said, 'Fine. You should have one.'

"Accordingly, I asked him how much it would cost and he said, 'Oh, about \$140.' I told him OK, to go ahead and have one sent out to the house.

"At no time did I ask him from whom he would purchase it. A short time later, the unit was delivered to my home. The next morning I asked Mr. Weyn how much I owed him and he told me \$129.78.

"I told him to come in the office and I would give him a check. Mr. Weyn said to make it out to Mr. H. Golanty as he had purchased it through him. The check was made payable to Mr. Golanty in the aforementioned amount and dated 5-18-51.

"To the best of my recollection I have met Mr. Golanty once when he came to this office to see Mr. Weyn. I would not know the gentleman if I were to see him on the street.

"The freezer that I purchased has been on sale at Hudson's for \$191. Thus it can be seen I was undoubtedly given a wholesale price on this article."

2 Navy Surplus Sales Scheduled For Week of Oct. 21, In Columbus

COLUMBUS, Ohio—Two sales of U. S. Navy surplus materials will be conducted the week of October 21, at the Navy Industrial Reserve Aircraft Plant here, it was announced recently by the Supervising Inspector of Naval Material.

The first sale, scheduled for 2 p.m., Monday, Oct. 22, will consist of three sets of dies, one each for sink, lavatory, and bathtub. These dies will be sold separately in three lots.

The second sale, scheduled for 2 p.m., Wednesday, Oct. 24, will include porcelain enamel pre-drying ovens, conveyors, ventilating stacks and blowers, sludge conveyor elevators, and related equipment. This sale consists of a total of 41 lots.

Included are 10 lots of porcelain enamel pre-dry ovens of various sizes and nine lots of conveyor equipment

to be used with these ovens. Five lots consist of sludge elevator conveyors of various sizes. Other lots include equipment related to the operations for which the ovens were used.

Catalogs covering these items, giving specifications, measurements, and details, and other catalogs covering future sales will be mailed to interested parties who request them of the Supervising Inspector of Naval Material, c/o North American Aviation, Inc., 4300 E. Fifth Ave., Building 3A, Columbus 16, Ohio.

Bids for either of the sales announced above must be made on forms which accompany the catalog, and must be accompanied by negotiable instruments in the amount of 25% of the bid price. Materials sold at these sales are loaded f.o.b. Columbus at the seller's expense.

Crosley Sponsoring \$2 Million 'American Way of Life' Contest

NEW YORK CITY—Crosley Div. of Avco Mfg. Corp. last week told the story of its \$2 million "American Way of Life" contest.

The contest will be conducted both locally and nationally, with a top prize of \$10,000. A sum of \$500,000 will also be awarded to churches and charities selected by local contest winners and a number of the national prize winners.

In reply to the question "why a contest to stimulate sales when restrictions are forcing cutbacks on consumer goods production," John W. Craig, Avco vice president and Crosley general manager, explained that the diversion of metals, especially copper, steel, aluminum, and nickel, will cut production levels, but that this will be offset partly by technological advances.

"One of the most graphic demonstrations is the fact that technological advances enabled radio and television tube makers to turn out 229 million tubes in the first seven months of this year using two thirds of the amount of nickel necessary for 191 million tubes in the like period of 1950," Craig said.

Contestants entering either local or national contests will be asked to submit answers to a 10-statement true-false quiz about Crosley plus a 50-word statement on "What the American Way of Life Means To Me."

In announcing the contest here, Crosley prepared an exhibit of European models of various appliances as contrasted with the latest Crosley products. With each of the products the number of hours an American must work to purchase the items was contrasted with the labor required by Europeans to purchase their continental counterparts.



JOHN YORK

DON PETRONE

Typhoon Appointments--

(Concluded from Page 1, Column 5) Typhoon, he was associated with C. V. Hill & Co., Inc. and General Electric Co.

Dailey said Petrone was appointed to his new position "due to the rapidly expanding civilian and military demand for Typhoon air conditioning units." In his new capacity, Petrone will be able to devote more time to his increased responsibilities, Dailey added.

Filing Warning--

(Concluded from Page 1, Column 2) trouble obtaining supplies in the first quarter of next year.

"Mills are not required to accept authorized controlled materials orders unless they are placed within the prescribed time," Fleischmann said. "In steel, this varies from 45 to 120 days, according to type of product.

Fleischmann added that "there will be nothing we can do" to help manufacturers who are late in filing.

Coolerator Plans for Biggest Christmas Promotion Revealed to District Managers

DULUTH, Minn. — International Telephone & Telegraph Corp.'s "newest associate," Coolerator Co., will conduct a big December advertising drive designed to reach one out of every two American families and back it up with a variety of distributor-dealer sales aids including display material, direct mail pieces, and customer gifts.

Plans for Coolerator's biggest Christmas promotion were detailed at a recent meeting here of the company's district managers. At the same time, production and sales programs were outlined by Fred Wilson, president, and G. L. Rees, sales vice president.

The advertising campaign, which will be directed at 25,000,000 magazine readers, was described by H. C. Beresford, advertising manager, and Samuel M. S. Lanham, J. M. Mathes' account executive for IT&T and Coolerator.

To reach the mass market, four-color, full-page advertisements will be run in the December issues of *Better Homes & Gardens*, *Ladies' Home Journal*, *McCall's*, *Good Housekeeping*, *The Saturday Evening Post*, and *Farm Journal*.

To interest the "class" market, full-page black and white advertisements will be published in *Time*, *Newsweek*, and *U. S. News and World Report*. Leading up to the December advertisements, which will urge readers to give Coolerator appliances as Christmas gifts, institutional advertisements sponsored by

IT&T will appear in the same three magazines in October and November.

A Christmas display package will be the main feature of the company's promotion for distributors and dealers. To be available to dealers for \$4.50, the package consists of these items designed to fill a display window: animated refrigerator, freezer, and electric range displays, a Christmas display banner, and easels and reprints of national advertisements.

Also available to dealers will be four-page, full-color, newspaper-size direct mailing pieces. The cost of \$18 per thousand will include the dealer's imprint and prepaid delivery to any rural or star route residents specified by the dealer.

In addition, dealers will be able to order sets of six polyethylene freezer bags as gifts. They will also be able to use a \$25 Christmas gift certificate, applicable on the price of an appliance, as an order-closing incentive.

Aluminum--

(Concluded from Page 1, Column 2) ers and fabricators, however, say the situation is "murder."

They claim to be getting only a small portion of their allocations because the National Production Authority has deliberately allocated about 14% more aluminum to industry than was available, expecting that some of the allocation would never be cashed.

CHILL CHEST

The Greatest
VALUE in
FOOD FREEZERS

THE FAMILY'S
PREFERENCE EVERYWHERE



Revco, INC. • DEERFIELD, MICH.



prize package for refrigeration

Clean, dry. Dehydrated even in excess of A.S.R.E. requirements. Mirror-smooth inside surface. Makes solid seats.

Uniform cross section.

Uniform softness.

Tube ends sealed.

Packed in strong, distinctive carton.

50-ft. coils.*

ALL the
refrigeration
tube qualities
you want in
ONE package!



Eliminate vibration with American
Vibration Eliminators. They are
easy to install, absorb line
vibration from compressor.

*Anaconda Dehydrated Copper Refrigeration Tubes are also obtainable in other length coils and extra-long lengths (length depending on tube size).

Ask your wholesaler for ANACONDA Refrigeration Tubes and American Vibration Eliminators for refrigeration, air conditioning and for general use. Made by The American Brass Company, Waterbury 20, Connecticut. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario.

for consistent uniformity—ask for

ANACONDA

REFRIGERATION PRODUCTS